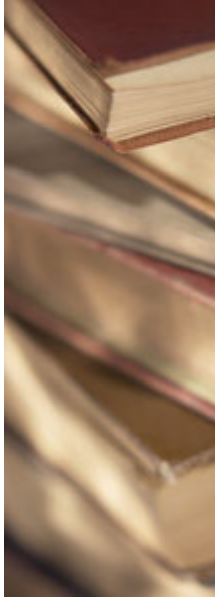


NAEP 2007 Reading Report for Arizona

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This report provides selected results from the National Assessment of Educational Progress (NAEP) for Arizona's public school students at grades 4 and 8. Beginning in 1992, reading has been assessed in seven different years at the state level (at grade 4 in 1992 and 1994, and at both grades 4 and 8 in 1998, 2002, 2003, 2005, and 2007).

In the 2007 assessment, 52 jurisdictions participated: the 50 states, the District of Columbia, and the Department of Defense Schools (domestic and overseas). Arizona participated and met the criteria for reporting public school results. Reading results are reported by average scale scores (on a 0–500 point scale) and by achievement levels (*Basic*, *Proficient*, and *Advanced*).

NAEP is a project of the National Center for Education Statistics (NCES). For more information about the assessment, see *The Nation's Report Card, Reading 2007*, which is available on the NAEP website along with the full set of national and state results in an interactive database (<http://nces.ed.gov/nationsreportcard/>). Released test questions, scoring guides, and question-level performance data are also available on the website.

K E Y F I N D I N G S F O R 2 0 0 7

Grade 4:

- The average reading score for students in Arizona was 210. This was not significantly different from that in 1992 (209) and was not significantly different from that in 2005 (207).
- Arizona's average score (210) was lower than that of the nation's public schools (220).
- The percentage of students in Arizona who performed at or above *Proficient* was 24 percent. This was not significantly different from that in 1992 (21 percent) and was not significantly different from that in 2005 (24 percent).
- In Arizona, the percentage of students who performed at or above *Proficient* was smaller than that for the nation's public schools (32 percent).
- The percentage of students in Arizona who performed at or above *Basic* was 56 percent. This was not significantly different from that in 1992 (54 percent) and was not significantly different from that in 2005 (52 percent).

- In Arizona, the percentage of students who performed at or above *Basic* was smaller than that for the nation's public schools (66 percent).

Grade 8:

- The average reading score for students in Arizona was 255. This was lower than that in 1998 (260) and was not significantly different from that in 2005 (255).
- Arizona's average score (255) was lower than that of the nation's public schools (261).
- The percentage of students in Arizona who performed at or above *Proficient* was 24 percent. This was not significantly different from that in 1998 (27 percent) and was not significantly different from that in 2005 (23 percent).
- In Arizona, the percentage of students who performed at or above *Proficient* was smaller than that for the nation's public schools (29 percent).
- The percentage of students in Arizona who performed at or above *Basic* was 65 percent. This was smaller than that in 1998 (72 percent) and was not significantly different from that in 2005 (65 percent).
- In Arizona, the percentage of students who performed at or above *Basic* was smaller than that for the nation's public schools (73 percent).

The U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP) has provided software that generated user-selectable data, statistical significance test result statements, and technical descriptions of the NAEP assessments for this report. Content may be added or edited by states or other jurisdictions. This document, therefore, is not an official publication of the National Center for Education Statistics.

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Introduction

What Was Assessed?

The content for each NAEP assessment is determined by the National Assessment Governing Board. The objectives for each NAEP assessment are described in a "framework," a document that delineates the important content and process areas to be measured, as well as the types of questions to be included in the assessment. The development process for reading required the active participation of teachers, curriculum specialists, subject-matter specialists, local school administrators, parents, and members of the general public. The reading framework is available on the Governing Board's website (http://www.nagb.org/pubs/r_framework_05/761507-ReadingFramework.pdf).

The reading framework for the 1992 and 1994 reading assessments also guided the 1998, 2000 (national grade 4 only), 2002, 2003, 2005, and 2007 assessments. This framework was developed under the auspices of the Council of Chief State School Officers (CCSSO), and directed by the Governing Board. In 2002, the framework was updated to provide more explicit detail regarding the assessment design. In the process, some of the terms used to describe elements of the reading assessment were altered slightly. It should be noted, however, that these alterations do not represent a change in the content or design of the NAEP reading assessment.

The framework is founded on a body of research from the field of education that defines reading as an interactive and constructive process involving the reader, the text, and the context of the reading experience. Reading involves the development of an understanding of text, thinking about the text in different ways, and using a variety of text types for different purposes.

Recognizing that readers vary their approach to reading different texts, the framework specifies the assessment of reading in three contexts: reading for literary experience, reading to gain information, and reading to perform a task. Each context for reading is associated with a range of different types of texts that are included in the NAEP reading assessment. All three contexts for reading are assessed at grades 8 and 12, but reading to perform a task is not

assessed at grade 4.

As readers attempt to develop an understanding of a text, they focus on general topics or themes, interpret and integrate ideas, make connections to background knowledge and experiences, and examine the content and structure of the text. The framework accounts for these different approaches to understanding text by specifying four "aspects of reading" (forming a general understanding, developing interpretation, making reader/text connections, and examining content and structure) that represent the types of comprehension questions asked of students. All four aspects of reading are assessed at all three grades within each context for reading. The reading framework specifies the percentage distribution of questions by grade level for each of the contexts for and aspects of reading.

The assessment contains reading materials that were drawn from sources commonly available to students both in and out of the school environment. These authentic materials were considered to be representative of students' typical reading experiences. Each student in the state assessment was asked to complete two 25-minute sections, each consisting of a reading passage and associated comprehension questions. A combination of multiple-choice and constructed-response questions was used to assess students' understanding of the passages. Released NAEP reading passages and questions, along with student performance data by state, are available on the NAEP website (<http://nces.ed.gov/nationsreportcard/itmls/>).

Who Was Assessed?

Fifty-two jurisdictions participated in NAEP in 2007: the 50 states, the District of Columbia, and the Department of Defense Education Activity Schools (domestic and overseas). The target sample for each state or other jurisdiction was approximately 100 schools at each grade tested and approximately 3,000 students for each subject at each grade. States containing trial urban districts had larger samples.

The sample of schools and students was chosen in a two-stage sampling process. First, the sample of schools was selected by probability sampling methods. Then, within the participating schools, random samples of students were chosen.

Beginning in 2002, the national sample was obtained by aggregating the samples from each state. The national results include the results from the states and from a sample of private schools, weighted appropriately to represent the U.S. student population. Only public schools, however, are included in the state reports.

The overall participation rates for schools and students must meet guidelines established by the National Center for Education Statistics (NCES) and the National Assessment Governing Board for assessment results to be reported publicly. A participation rate of at least 85 percent for schools in each subject and grade was required.

Participation rates for the 2007 reading assessment are available at the NAEP website (<http://nces.ed.gov/nationsreportcard/reading/sampledesign.asp>).

How Is Student Reading Performance Reported?

The results of student performance on the NAEP assessments in 2007 are reported for various groups of students (e.g., fourth-grade female students or students who took the assessment in a particular year). NAEP does not produce scores for individual students, nor does it report scores for schools or for school districts. Some large urban districts, however, have voluntarily participated in the assessment on a trial basis and were sampled as states were sampled. Reading performance for groups of students is reported in two ways: as average scale scores and as percentages of students performing at various achievement levels.

Scale Scores: Student performance is reported as an average score based on the NAEP reading scale, which ranges from 0 to 500 and is linked to the corresponding scales in 1992, 1994, 1998, 2000, 2002, 2003, and 2005. Subscales were created to reflect performance on each of the contexts for reading defined in the NAEP reading framework.

An overall composite scale was developed by weighting each of the reading subscales for the grade (two at grade 4 and three at grade 8) based on its relative importance in the framework. This composite scale is used to present the

average scale scores and selected percentiles used in NAEP reports.

Achievement Levels: Student reading performance is also reported in terms of three achievement levels—*Basic*, *Proficient*, and *Advanced*. Results based on achievement levels are expressed in terms of the percentage of students who attained each level. The three achievement levels are defined as follows:

- *Basic*: This level denotes partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade.
- *Proficient*: This level represents solid academic performance for each grade assessed. Students reaching this level have demonstrated competency over challenging subject matter, including subject-matter knowledge, application of such knowledge to real-world situations, and analytical skills appropriate to the subject matter.
- *Advanced*: This level signifies superior performance.

The achievement levels are cumulative. Therefore, students performing at the *Proficient* level also display the competencies associated with the *Basic* level, and students at the *Advanced* level demonstrate the competencies associated with both the *Basic* and the *Proficient* levels.

The achievement levels are performance standards adopted by the National Assessment Governing Board as part of its statutory responsibilities mandated by Congress. The levels represent collective judgments of what students should know and be able to do for each grade tested. They are based on recommendations made by broadly representative panels of classroom teachers, education specialists, and members of the general public from throughout the United States. As provided by law, the National Center for Education Statistics (NCES), upon review of congressionally mandated evaluations of NAEP, has determined that the achievement levels are to be used on a trial basis until it is determined that they are "reasonable, valid, and informative to the public" (No Child Left Behind Act of 2001, P.L., 107-110, 115 Stat.1425 [2002]). They have been widely used by national and state officials. The reading achievement-level descriptions are summarized in figure 1.

Figure 1-A	The Nation's Report Card 2007 State Assessment
	Descriptions of fourth-grade achievement levels for 2007 NAEP reading assessment

Basic Level (208)	Fourth-grade students performing at the <i>Basic</i> level should demonstrate an understanding of the overall meaning of what they read. When reading text appropriate for fourth graders, they should be able to make relatively obvious connections between the text and their own experiences and extend the ideas in the text by making simple inferences.
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For example, when reading **literary** text, they should be able to tell what the story is generally about—providing details to support their understanding—and be able to connect aspects of the stories to their own experiences.

When reading **informational** text, *Basic*-level fourth graders should be able to tell what the selection is generally about or identify the purpose for reading it, provide details to support their understanding, and connect ideas from the text to their background knowledge and experiences.

Proficient Level (238)	Fourth-grade students performing at the <i>Proficient</i> level should be able to demonstrate an overall understanding of the text, providing inferential as well as literal information. When reading text appropriate to fourth grade, they should be able to extend the ideas in the text by making inferences, drawing conclusions, and making connections to their own experiences. The connections between the text and what the student infers should be clear.
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For example, when reading **literary** text, *Proficient*-level fourth graders should be able to summarize the story, draw conclusions about the characters or plot, and recognize relationships such as cause and effect.

When reading **informational** text, *Proficient*-level students should be able to summarize the information and identify the author's intent or purpose. They should be able to draw reasonable conclusions from the text, recognize relationships

such as cause and effect or similarities and differences, and identify the meaning of the selection's key concepts.

Advanced Level (268)	Fourth-grade students performing at the <i>Advanced</i> level should be able to generalize about topics in the reading selection and demonstrate an awareness of how authors compose and use literary devices. When reading text appropriate to fourth grade, they should be able to judge texts critically and, in general, give thorough answers that indicate careful thought.
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For example, when reading **literary** text, *Advanced*-level students should be able to make generalizations about the point of the story and extend its meaning by integrating personal experiences and other readings with ideas suggested by the text. They should be able to identify literary devices such as figurative language.

When reading **informational** text, *Advanced*-level fourth graders should be able to explain the author's intent by using supporting material from the text. They should be able to make critical judgments of the form and content of the text and explain their judgments clearly.

NOTE: The scores in parentheses indicate the lowest point on the scale at which the achievement-level range begins.
SOURCE: National Assessment Governing Board. (2006). *Reading Framework for the 2007 National Assessment of Educational Progress*. Washington, DC: Author.

Figure 1-B	The Nation's Report Card 2007 State Assessment
	Descriptions of eighth-grade achievement levels for 2007 NAEP reading assessment

Basic Level (243)	Eighth-grade students performing at the <i>Basic</i> level should demonstrate a literal understanding of what they read and be able to make some interpretations. When reading text appropriate to eighth grade, they should be able to identify specific aspects of the text that reflect the overall meaning, extend the ideas in the text by making simple inferences, recognize and relate interpretations and connections among ideas in the text to personal experience, and draw conclusions based on the text.
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For example, when reading **literary** text, *Basic*-level eighth graders should be able to identify themes and make inferences and logical predictions about aspects such as plot and characters.

When reading **informational** text, they should be able to identify the main idea and the author's purpose. They should make inferences and draw conclusions supported by information in the text. They should recognize the relationships among the facts, ideas, events, and concepts of the text (e.g., cause and effect and chronological order).

When reading **practical** text, they should be able to identify the main purpose and make predictions about the relatively obvious outcomes of procedures in the text.

Proficient Level (281)	Eighth-grade students performing at the <i>Proficient</i> level should be able to show an overall understanding of the text, including inferential as well as literal information. When reading text appropriate to eighth grade, they should be able to extend the ideas in the text by making clear inferences from it, by drawing conclusions, and by making connections to their own experiences—including other reading experiences. <i>Proficient</i> eighth graders should be able to identify some of the devices authors use in composing text.
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For example, when reading **literary** text, students at the *Proficient* level should be able to give details and examples to support themes that they identify. They should be able to use implied as well as explicit information in articulating themes; to interpret the actions, behaviors, and motives of characters; and to identify the use of literary devices such as personification and foreshadowing.

When reading **informational** text, they should be able to summarize the text using explicit and implied information and support conclusions with inferences based on the text.

When reading **practical** text, *Proficient*-level students should be able to describe its purpose and support their views with examples and details. They should be able to judge the importance of certain steps and procedures.

Advanced Level	Eighth-grade students performing at the <i>Advanced</i> level should be able to describe the more abstract themes and ideas of the overall text. When reading text appropriate to eighth grade, they should be able
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(323)	to analyze both meaning and form and support their analyses explicitly with examples from the text, and they should be able to extend text information by relating it to their experiences and to world events. At this level, student responses should be thorough, thoughtful, and extensive.
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For example, when reading **literary** text, *Advanced*-level eighth graders should be able to make complex abstract summaries and theme statements. They should be able to describe the interactions of various literary elements (i.e., setting, plot, characters, and theme) and explain how the use of literary devices affects both the meaning of the text and their response to the author's style. They should be able critically to analyze and evaluate the composition of the text.

When reading **informational** text, they should be able to analyze the author's purpose and point of view. They should be able to use cultural and historical background information to develop perspectives on the text and be able to apply text information to broad issues and world situations.

When reading **practical** text, *Advanced*-level students should be able to synthesize information that will guide their performance, apply text information to new situations, and critique the usefulness of the form and content.

NOTE: The scores in parentheses indicate the lowest point on the scale at which the achievement-level range begins. SOURCE: National Assessment Governing Board. (2006). *Reading Framework for the 2007 National Assessment of Educational Progress*. Washington, DC: Author.

Assessing Students With Disabilities (SD) and/or English Language Learners (ELL)

The results displayed in this report and official publications of NAEP 2007 results are based on representative samples that include students with disabilities (SD) and students who are English language learners (ELL). Some of these students were assessed using accommodations (such as extra time and testing in small groups). In state NAEP reading assessments prior to 1998 no testing accommodations or adaptations were permitted for SD or ELL students. However, research carried out by NAEP showed that the results for students who were accommodated could be combined with the results for unaccommodated students without compromising the validity of the NAEP scales in trend comparisons. Therefore, the identified SD and ELL students who typically received accommodations in their classroom testing and required these accommodations to participate, also received them in the NAEP assessment, provided the accommodations did not change the nature of what was tested.

School staff make the decisions about whether to include an SD or ELL student in a NAEP assessment, and which testing accommodations, if any, they should receive. The NAEP program furnishes tools to assist school personnel in making those decisions.

A sampling procedure is used to select students at each grade being tested. Students are selected on a random basis, without regard to SD or ELL status. Once the students are selected, the schools identify which have SD or ELL status. School staff who are familiar with these students are asked a series of questions to help them decide whether each student should participate in the assessment and whether the student needs accommodations.

Inclusion in NAEP of an SD or ELL student is encouraged if that student (a) participated in the regular state academic assessment in the subject being tested, and (b) if that student can participate in NAEP with the accommodations NAEP allows. Even if the student did not participate in the regular state assessment, or if he/she needs accommodations NAEP does not allow, school staff are asked whether that student could participate in NAEP with the allowable accommodations. (Examples of testing accommodations not allowed in NAEP are giving the reading assessment in a language other than English, or reading the reading passages aloud to the student. Also, extending testing over several days is not allowed for NAEP because NAEP administrators are in each school only one day.)

Cautions in Interpreting Results

The averages and percentages in this report are estimates based on samples of students rather than on entire populations. Moreover, the collection of questions used at each grade level is but a sample of the many questions that could have been asked to assess the skills and abilities described in the NAEP framework. Therefore, the results are subject to a measure of uncertainty, reflected in the standard error of the estimates—a range of up to a few points above or below the score or percentage—which takes into account potential score fluctuation due to sampling error and measurement error. Statistical tests that factor in these standard errors are used to determine whether the differences between average scores or percentages are significant. All differences were tested for statistical significance at the .05

level.

NAEP sample sizes have increased since 2002 compared to previous years, resulting in smaller standard errors. As a consequence, smaller differences are detected as statistically significant than detected in previous assessments. In addition, estimates based on smaller groups are likely to have relatively large standard errors. Thus, some seemingly large differences may not be statistically significant. That is, it cannot be determined whether these differences are due to sampling error, or to true differences in the population of interest.

Differences between scores or between percentages are discussed in this report only when they are significant from a statistical perspective. Statistically significant differences are referred to as "significant differences" or "significantly different." Significant differences between 2007 and prior assessments are marked with a notation (*) in the tables. Any differences in scores within a year or across years that are mentioned in the text as "higher," "lower," "greater," or "smaller" are statistically significant.

It is important to note that simple cross-tabulations of a variable with measures of educational achievement, like the ones presented in this report, cannot constitute proof that a difference in the variable causes differences in educational achievement. There might be several reasons why the performance of one group of students might differ from another. Only through controlled experiments with random assignment of students to groups can hypotheses about the causes of performance differences be tested.

NAEP 2007 Reading Overall Scale Score and Achievement-Level Results for Public School Students

Overall Scale Score Results

In this section student performance is reported as an average score based on the NAEP reading scale, which ranges from 0 to 500. Scores on this scale are comparable from 1992 through 2007.

Prior to 1998, testing accommodations were not provided for students with special needs in NAEP state reading assessments. In 1998 only, results were reported for two samples of students: one in which accommodations were permitted and one in which accommodations were not permitted. Subsequent assessment results were based on the more inclusive samples. In the text of this report, comparisons to 1998 results refer only to the sample in which accommodations were permitted.

Tables 1-A and 1-B show the overall performance results of grades 4 and 8 public school students in Arizona, the nation (public), and the region. The list of states making up a given region for NAEP prior to 2003 differed from the list used by the U.S. Census Bureau, which has been used in NAEP from 2003 onward. Therefore, the data for the state's region are given only for 2003, 2005, and 2007. The first column of results presents the average score on the NAEP reading scale. The remaining columns show the scores at selected percentiles. A percentile indicates the percentage of students whose scores fell at or below a particular score. For example, the 25th percentile demarks the cut point for the lowest 25 percent of students within the distribution of scale scores.

Grade 4 Scale Score Results

- In 2007, the average scale score for students in Arizona was 210. This was lower than that for students across the nation (220).
- In Arizona, the average scale score for students in 2007 was not significantly different from that in 2005 (207). However, the average scale score for students in public schools across the nation in 2007 was higher than that in 2005 (217).
- In Arizona, the average scale score for students in 2007 was not significantly different from the scores in 1992, 1994, 1998, 2002, and 2003.

**Table
1-A**

The Nation's Report Card 2007 State Assessment

Average scale scores and selected percentile scores in NAEP reading for fourth-grade public school students, by assessment year and jurisdiction: Various years, 1992–2007

Year and jurisdiction	Average scale score	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
1992 ¹ Nation (public)	215*	168*	192*	217*	240*	259
Arizona	209	164*	187	212	234	252*
1994 ¹ Nation (public)	212*	156*	187*	217*	241*	261
Arizona	206	148*	179*	210	237	259
1998 ¹ Nation (public)	215*	165*	192*	218*	242*	261
Arizona	207	153	181	210	235	255
1998 Nation (public)	213*	161*	189*	215*	241*	260*
Arizona	206	154	181	209*	235	255
2002 Nation (public)	217*	169*	194*	219*	242*	261*
Arizona	205	151	179*	209*	234	255
2003 Nation (public)	216*	167*	193*	219*	243*	262*
West ²	210*	158*	185*	213*	238*	258
Arizona	209	157	184	212	236	256
2005 Nation (public)	217*	169*	194*	220*	243*	262*
West ²	211*	160*	186*	214*	238	258
Arizona	207	152	180*	210	236	257
2007 Nation (public)	220	173	198	222	244	263
West ²	213	162	189	216	240	259
Arizona	210	158	186	214	237	256

* Value is significantly different from the value for the same jurisdiction in 2007.

¹ Accommodations were not permitted for this assessment.

² Region in which state is located. Regional data are not provided for years prior to 2003 because the region definitions were changed. In 2003, NAEP adopted the U.S. Census Bureau defined regions: Northeast, South, Midwest, and West.

NOTE: The NAEP grade 4 reading scale ranges from 0 to 500. All differences were tested for statistical significance at the .05 level using unrounded numbers. Performance comparisons may be affected by differences in exclusion rates for students with disabilities and English language learners in the NAEP samples and by changes in sample sizes.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1992–2007 Reading Assessments.

Grade 8 Scale Score Results

- In 2007, the average scale score for students in Arizona was 255. This was lower than that for students across the nation (261).
- In Arizona, the average scale score for students in 2007 was not significantly different from that in 2005 (255). However, the average scale score for students in public schools across the nation in 2007 was higher than that in 2005 (260).
- In Arizona, the average scale score for students in 2007 was lower than the score in 1998, but was not significantly different from the scores in 2002 and 2003.

**Table
1-B**

The Nation's Report Card 2007 State Assessment

Average scale scores and selected percentile scores in NAEP reading for eighth-grade public school students, by assessment year and jurisdiction: Various years, 1998–2007

Year and jurisdiction	Average scale score	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
1998 ¹ Nation (public)	261	215	240	264	286	304
Arizona	261*	218*	241*	263*	283	299
1998 Nation (public)	261	214	238	264	285	303
Arizona	260*	218*	240*	262*	283	299
2002 Nation (public)	263*	219*	242*	265*	286*	303
Arizona	257	213	235	259	279	297
2003 Nation (public)	261	215	240	264	286*	304*
West ²	256	206	233	259	282	301
Arizona	255	206	233	259	281	299
2005 Nation (public)	260*	214*	238*	263*	285	303
West ²	255	207	232*	257	280	299
Arizona	255	209	232	257	279	298
2007 Nation (public)	261	216	240	264	285	303
West ²	256	207	234	259	281	300
Arizona	255	207	232	257	280	299

* Value is significantly different from the value for the same jurisdiction in 2007.

¹ Accommodations were not permitted for this assessment.

² Region in which state is located. Regional data are not provided for years prior to 2003 because the region definitions were changed. In 2003, NAEP adopted the U.S. Census Bureau defined regions: Northeast, South, Midwest, and West.

NOTE: The NAEP grade 8 reading scale ranges from 0 to 500. All differences were tested for statistical significance at the .05 level using unrounded numbers. Performance comparisons may be affected by differences in exclusion rates for students with disabilities and English language learners in the NAEP samples and by changes in sample sizes.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1998–2007 Reading Assessments.

Overall Achievement-Level Results

In this section, student performance is reported as the percentage of students performing relative to performance standards set by the National Assessment Governing Board. These performance standards for what students should know and be able to do were based on the recommendations of broadly representative panels of educators and members of the public.

In 1998 only, results were obtained for two student samples: one for which accommodations were permitted and one for which accommodations were not permitted. However, in the text of this report, comparisons to 1998 results refer only to the sample in which accommodations were permitted.

Tables 2-A and 2-B show the percentage of students at grades 4 and 8 who performed below *Basic*, at or above *Basic*, at or above *Proficient*, and at the *Advanced* level. Because the percentages are cumulative from *Basic* to *Proficient* to *Advanced*, they sum to more than 100 percent. Only the percentage of students performing at or above *Basic* (which includes the students at *Proficient* and *Advanced*) plus the students below *Basic* will sum to 100 percent (except for rounding).

Grade 4 Achievement-Level Results

- In 2007, the percentage of Arizona's students who performed at or above *Proficient* was 24 percent. This was smaller than the percentage of the nation's public school students who performed at or above *Proficient* (32 percent).
- In Arizona, the percentage of students who performed at or above *Proficient* in 2007 was not significantly different from the percentages in 1992, 1994, 1998, 2002, 2003, and 2005.
- In Arizona, the percentage of students who performed at or above *Basic* in 2007 was greater than the percentages in 1998 and 2002, but was not significantly different from the percentages in 1992, 1994, 2003, and 2005.

**Table
2-A**

The Nation's Report Card 2007 State Assessment

Percentage of fourth-grade public school students at or above NAEP reading achievement levels, by assessment year and jurisdiction: Various years, 1992–2007

Year and jurisdiction	Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
1992 ¹ Nation (public)	40*	60*	27*	6*
Arizona	46	54	21	3
1994 ¹ Nation (public)	41*	59*	28*	7
Arizona	48	52	24	6
1998 ¹ Nation (public)	39*	61*	29*	6
Arizona	47	53	22	5
1998 Nation (public)	42*	58*	28*	6*
Arizona	49*	51*	22	4
2002 Nation (public)	38*	62*	30*	6*
Arizona	49*	51*	22	4
2003 Nation (public)	38*	62*	30*	7*
West ²	45*	55*	25*	6
Arizona	46	54	23	4
2005 Nation (public)	38*	62*	30*	7*
West ²	44*	56*	25	6
Arizona	48	52	24	6
2007 Nation (public)	34	66	32	7
West ²	42	58	27	6
Arizona	44	56	24	5

* Value is significantly different from the value for the same jurisdiction in 2007.

¹ Accommodations were not permitted for this assessment.

² Region in which state is located. Regional data are not provided for years prior to 2003 because the region definitions were changed. In 2003, NAEP adopted the U.S. Census Bureau defined regions: Northeast, South, Midwest, and West.

NOTE: Achievement levels correspond to the following points on the NAEP reading scale: below *Basic*, 207 or lower; *Basic*, 208–237; *Proficient*, 238–267; and *Advanced*, 268 and above. All differences were tested for statistical significance at the .05 level using unrounded numbers. Detail may not sum to totals because of rounding. Performance comparisons may be affected by differences in exclusion rates for students with disabilities and English language learners in the NAEP samples and by changes in sample sizes.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1992–2007 Reading Assessments.

Grade 8 Achievement-Level Results

- In 2007, the percentage of Arizona's students who performed at or above *Proficient* was 24 percent. This was smaller than the percentage of the nation's public school students who performed at or above *Proficient* (29 percent).
- In Arizona, the percentage of students who performed at or above *Proficient* in 2007 was not significantly different from the percentages in 1998, 2002, 2003, and 2005.
- In Arizona, the percentage of students who performed at or above *Basic* in 2007 was smaller than the percentage in 1998, but was not significantly different from the percentages in 2002, 2003, and 2005.

**Table
2-B**

The Nation's Report Card 2007 State Assessment

Percentage of eighth-grade public school students at or above NAEP reading achievement levels, by assessment year and jurisdiction: Various years, 1998–2007

Year and jurisdiction	Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
1998 ¹ Nation (public)	28	72	31	2
Arizona	27*	73*	28	2
1998 Nation (public)	29	71	30	2
Arizona	28*	72*	27	1
2002 Nation (public)	26*	74*	31*	2
Arizona	32	68	23	1
2003 Nation (public)	28	72	30*	3*
West ²	34	66	26	2
Arizona	34	66	25	2
2005 Nation (public)	29*	71*	29	3
West ²	35*	65*	24	2
Arizona	35	65	23	2
2007 Nation (public)	27	73	29	2
West ²	33	67	25	2
Arizona	35	65	24	2

* Value is significantly different from the value for the same jurisdiction in 2007.

¹ Accommodations were not permitted for this assessment.

² Region in which state is located. Regional data are not provided for years prior to 2003 because the region definitions were changed. In 2003, NAEP adopted the U.S. Census Bureau defined regions: Northeast, South, Midwest, and West.

NOTE: Achievement levels correspond to the following points on the NAEP reading scale: below *Basic*, 242 or lower; *Basic*, 243–280; *Proficient*, 281–322; and *Advanced*, 323 and above. All differences were tested for statistical significance at the .05 level using unrounded numbers. Detail may not sum to totals because of rounding. Performance comparisons may be affected by differences in exclusion rates for students with disabilities and English language learners in the NAEP samples and by changes in sample sizes.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1998–2007 Reading Assessments.

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Reading Performance of Selected Student Groups

This section of the report presents trend results for students in Arizona and the nation by demographic characteristics. Student performance data are reported for

- gender
- race/ethnicity
- student eligibility for the National School Lunch program
- type of location (for 2007 only)
- parents' highest level of education (for grade 8 only).

Definitions of NAEP reporting groups are available on the NAEP website (<http://nces.ed.gov/nationsreportcard/reading/results2007/interpret-results.asp#RepGroups>).

Each of the variables is reported in tables that present the percentage of students belonging to each group in the first column and the average scale score in the second column. The columns to the right show the percentage of students at or above each achievement level.

Differences between scores or percentages mentioned in the text are calculated using unrounded values. The result of subtracting the rounded values displayed in the tables may differ (usually by one point) from the results that would be obtained by subtracting the unrounded values.

The reader is cautioned against making causal inferences about the performance of groups of students relative to demographic variables. Many factors other than those discussed here, including home and school factors, may affect student performance.

NAEP collects information on many additional variables, including school and home factors related to achievement. All of this information is in an interactive database available on the NAEP website (<http://nces.ed.gov/nationsreportcard/>).

Gender

Information on student gender is reported by the student's school when rosters of the students eligible to be assessed are submitted to NAEP.

Tables 3-A and 3-B show average scale scores and achievement-level data for public school students at grades 4 and 8 in Arizona and the nation by gender. In 1998 only, results were obtained for student samples for which accommodations were permitted and those for which accommodations were not permitted. However, in the text of this report, comparisons to 1998 results refer only to the sample for which accommodations were permitted.

Score "gaps". In the bulleted text that follows, statements that compare the score gap between male and female students first make the comparison for the current year, and then for the initial year of the assessment. Intervening years are not compared. If the size of the score gap has changed significantly from the initial assessment year to the current year, the bullet will indicate a narrowing or widening of the score gap.

Grade 4 Scale Score Results by Gender

- In 2007, male students in Arizona had an average score that was lower than that of female students by 8 points. In 1992, the average score for male students was lower than that of female students by 8 points.
- In 2007, male students in Arizona had an average scale score in reading (206) that was lower than that of male students in public schools across the nation (216). Similarly, female students in Arizona had an average scale score (214) that was lower than that of female students across the nation (223).
- In Arizona, the average scale score of male students in 2007 was not found to be significantly different from the scores of students in 1992, 1994, 1998, 2002, 2003, and 2005.
- In Arizona, the average scale score of female students in 2007 was not found to be significantly different from the scores of students in 1992, 1994, 1998, 2002, 2003, and 2005.

Grade 4 Achievement-Level Results by Gender

- In the 2007 assessment, 22 percent of male students and 27 percent of female students performed at or above *Proficient* in Arizona. The difference between these percentages was statistically significant.
- The percentage of male students in Arizona's public schools who were at or above *Proficient* in 2007 (22 percent) was smaller than that of males in the nation (29 percent).
- The percentage of female students in Arizona's public schools who were at or above *Proficient* in 2007 (27 percent) was smaller than that of females in the nation (35 percent).
- In Arizona, the percentage of male students performing at or above *Proficient* in 2007 was not significantly different from the corresponding percentages of students in 1992, 1994, 1998, 2002, 2003, and 2005.
- In Arizona, the percentage of female students performing at or above *Proficient* in 2007 was not significantly different from the corresponding percentages of students in 1992, 1994, 1998, 2002, 2003, and 2005.

**Table
3-A**

The Nation's Report Card 2007 State Assessment

Percentage of fourth-grade public school students, average scale scores, and percentage at or above achievement levels in NAEP reading, by gender, assessment year, and jurisdiction: Various years, 1992–2007

Gender, year, and jurisdiction	Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
Male						
1992 ¹ Nation (public)	51	211*	44*	56*	24*	5
Arizona	48*	206	50	50	17	2
1994 ¹ Nation (public)	51	207*	47*	53*	24*	6
Arizona	50*	201	53	47	20	4
1998 ¹ Nation (public)	50	212*	43*	57*	27	6
Arizona	49*	201	53	47	18	3
1998 Nation (public)	50	210*	45*	55*	25*	5
Arizona	49*	202	54	46	18	3
2002 Nation (public)	51	214*	41*	59*	26*	5*
Arizona	51	200	54	46	18	3
2003 Nation (public)	51	213*	42*	58*	26*	6*
Arizona	50	206	49	51	21	4
2005 Nation (public)	50	214*	41*	59*	27*	6*
Arizona	51	203	51	49	21	5
2007 Nation (public)	50	216	38	62	29	6
Arizona	52	206	48	52	22	4
Female						
1992 ¹ Nation (public)	49	219*	35*	65*	30*	7
Arizona	52*	213	42	58	24	4
1994 ¹ Nation (public)	49	218*	36*	64*	32	8
Arizona	50*	211	44	56	28	8
1998 ¹ Nation (public)	50	218*	36*	64*	31*	7*
Arizona	51*	212	42	58	26	6
1998 Nation (public)	50	215*	40*	60*	30*	7
Arizona	51*	211	44	56	25	6
2002 Nation (public)	49	220*	35*	65*	33*	8*
Arizona	49	211	44	56	26	6
2003 Nation (public)	49	220*	35*	65*	33*	8
Arizona	50	212	43	57	26	5
2005 Nation (public)	50	220*	34*	66*	33*	8*
Arizona	49	211	44	56	26	7
2007 Nation (public)	50	223	31	69	35	9
Arizona	48	214	40	60	27	5

* Value is significantly different from the value for the same jurisdiction in 2007.

¹ Accommodations were not permitted for this assessment.

NOTE: The NAEP grade 4 reading scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP reading scale: below Basic, 207 or lower; Basic, 208–237; Proficient, 238–267; and Advanced, 268 and above. All differences were tested for statistical significance at the .05 level using unrounded numbers. Detail may not sum to totals because of rounding. Performance comparisons may be affected by differences in exclusion rates for students with disabilities and English language learners in the NAEP samples and by changes in sample sizes.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1992–2007 Reading Assessments.

Grade 8 Scale Score Results by Gender

- In 2007, male students in Arizona had an average score that was lower than that of female students by 8 points. In 1998, the average score for male students was lower than that of female students by 10 points.
- In 2007, male students in Arizona had an average scale score in reading (251) that was lower than that of male students in public schools across the nation (256). Similarly, female students in Arizona had an average scale score (259) that was lower than that of female students across the nation (266).
- In Arizona, the average scale score of male students in 2007 was lower than the score of students in 1998, but not found to be significantly different from the scores of students in 2002, 2003, and 2005.
- In Arizona, the average scale score of female students in 2007 was lower than the score of students in 1998, but not found to be significantly different from the scores of students in 2002, 2003, and 2005.

Grade 8 Achievement-Level Results by Gender

- In the 2007 assessment, 21 percent of male students and 28 percent of female students performed at or above *Proficient* in Arizona. The difference between these percentages was statistically significant.
- The percentage of male students in Arizona's public schools who were at or above *Proficient* in 2007 (21 percent) was not significantly different from that of males in the nation (24 percent).
- The percentage of female students in Arizona's public schools who were at or above *Proficient* in 2007 (28 percent) was smaller than that of females in the nation (34 percent).
- In Arizona, the percentage of male students performing at or above *Proficient* in 2007 was not significantly different from the corresponding percentages of students in 1998, 2002, 2003, and 2005.
- In Arizona, the percentage of female students performing at or above *Proficient* in 2007 was not significantly different from the corresponding percentages of students in 1998, 2002, 2003, and 2005.

**Table
3-B**

The Nation's Report Card 2007 State Assessment

Percentage of eighth-grade public school students, average scale scores, and percentage at or above achievement levels in NAEP reading, by gender, assessment year, and jurisdiction: Various years, 1998–2007

Gender, year, and jurisdiction	Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
Male						
1998 ¹ Nation (public)	51	255	35	65	24	1
Arizona	50	256*	32*	68*	22	1
1998 Nation (public)	51	253*	36*	64*	23	1
Arizona	51	255*	33*	67*	21	1
2002 Nation (public)	50	258*	30*	70*	26*	2
Arizona	51	252	36	64	18	1
2003 Nation (public)	50	256	33	67	25	2
Arizona	51	251	38	62	21	1
2005 Nation (public)	50	255	34*	66*	24	2
Arizona	51	249	41	59	19	1
2007 Nation (public)	50	256	32	68	24	1
Arizona	50	251	40	60	21	1
Female						
1998 ¹ Nation (public)	49	268*	21	79	37*	3
Arizona	50	266*	22*	78*	33	2
1998 Nation (public)	49	268*	21	79	37	3
Arizona	49	265*	22*	78*	32	2
2002 Nation (public)	50	267*	21*	79*	36*	3
Arizona	49	262	27	73	29	2
2003 Nation (public)	50	267	23	77	35	4
Arizona	49	260	29	71	29	2
2005 Nation (public)	50	266	24*	76*	34	3
Arizona	49	260	30	70	27	2
2007 Nation (public)	50	266	23	77	34	3
Arizona	50	259	31	69	28	3

* Value is significantly different from the value for the same jurisdiction in 2007.

¹ Accommodations were not permitted for this assessment.

NOTE: The NAEP grade 8 reading scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP reading scale: below Basic, 242 or lower; Basic, 243–280; Proficient, 281–322; and Advanced, 323 and above. All differences were tested for statistical significance at the .05 level using unrounded numbers. Detail may not sum to totals because of rounding. Performance comparisons may be affected by differences in exclusion rates for students with disabilities and English language learners in the NAEP samples and by changes in sample sizes.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1998–2007 Reading Assessments.

Race/Ethnicity

Schools reported the racial/ethnic subgroups that best describe the students eligible to be assessed. The six mutually exclusive categories are White, Black, Hispanic, Asian/Pacific Islander, American Indian/Alaska Native, and Unclassified. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin. Tables 4-A and 4-B show average scale scores and achievement-level data for public school students at grades 4 and 8 in Arizona and the nation by race/ethnicity. In 1998 only, results were obtained for student samples for which accommodations were permitted and those for which accommodations were not permitted. However, in the text of this report, comparisons to 1998 results refer only to the sample for which accommodations were permitted.

Score "gaps". In the bulleted text that follows, statements that compare the score gap between White and Black or White and Hispanic students first make the comparison for the current year, and then for the initial year of the assessment. Intervening years are not compared. If the size of the score gap has changed significantly from the initial assessment year to the current year, the bullet will indicate a narrowing or widening of the score gap.

Grade 4 Scale Score Results by Race/Ethnicity

- In 2007, White students in Arizona had an average scale score that was higher than the scores of Black, Hispanic, and American Indian/Alaska Native students, but was not found to be significantly different from the score of Asian/Pacific Islander students.
- In 2007, the average scale scores of White and Hispanic students in Arizona were higher than the scores of their corresponding peers in 1994 and 1998, but not found to be significantly different from the scores of their corresponding peers in 1992, 2002, 2003, and 2005.
- In 2007, the average scale score of Black students in Arizona was higher than the scores of their corresponding peers in 1994, 1998, and 2005, but not found to be significantly different from the scores of their corresponding peers in 1992, 2002, and 2003.
- In 2007, the average scale score of Asian/Pacific Islander students in Arizona was not found to be significantly different from the scores of their corresponding peers in 1994, 2002, 2003, and 2005.
- In 2007, the average scale score of American Indian/Alaska Native students in Arizona was not found to be significantly different from the scores of their corresponding peers in 1992, 1994, 1998, 2002, 2003, and 2005.
- In 2007, Black students had an average score that was lower than that of White students by 17 points. In 1992, the average score for Black students was lower than that of White students by 22 points.
- In 2007, Hispanic students had an average score that was lower than that of White students by 27 points. In 1992, the average score for Hispanic students was lower than that of White students by 23 points.

Grade 4 Achievement-Level Results by Race/Ethnicity

- In Arizona in 2007, the percentage of White students performing at or above *Proficient* was greater than the percentages of Black, Hispanic, and American Indian/Alaska Native students, but was not found to be significantly different from the percentage of Asian/Pacific Islander students.
- In 2007, the percentage of White students in Arizona performing at or above *Proficient* was greater than the percentage in 1992, but not found to be significantly different from the percentages of their respective peers in 1994, 1998, 2002, 2003, and 2005.
- In 2007, the percentage of Black students in Arizona performing at or above *Proficient* was not found to be significantly different from the percentages of their respective peers in 1992, 1994, 1998, 2002, 2003, and 2005.
- In 2007, the percentage of Hispanic students in Arizona performing at or above *Proficient* was not found to be significantly different from the percentages of their respective peers in 1992, 1994, 1998, 2002, 2003, and 2005.
- In 2007, the percentage of Asian/Pacific Islander students in Arizona performing at or above *Proficient* was not found to be significantly different from the percentages of their respective peers in 1994, 2002, 2003, and 2005.
- In 2007, the percentage of American Indian/Alaska Native students in Arizona performing at or above *Proficient* was not found to be significantly different from the percentages of their respective peers in 1992, 1994, 1998, 2002, 2003, and 2005.

**Table
4-A**

The Nation's Report Card 2007 State Assessment

Percentage of fourth-grade public school students, average scale scores, and percentage at or above achievement levels in NAEP reading, by race/ethnicity, assessment year, and jurisdiction: Various years, 1992–2007

Race/ethnicity, year, and jurisdiction	Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
White						
1992 ¹ Nation (public)	72*	223*	31*	69*	33*	8*
Arizona	61*	220	33	67	28*	5*
1994 ¹ Nation (public)	71*	222*	31*	69*	35*	9
Arizona	63*	219*	36*	64*	32	8
1998 ¹ Nation (public)	69*	224*	30*	70*	36*	8*
Arizona	59*	221	33	67	31	7
1998 Nation (public)	64*	223*	31*	69*	36*	9
Arizona	60*	219*	36*	64*	30	6
2002 Nation (public)	60*	227*	26*	74*	39*	9*
Arizona	51*	220	33	67	32	7
2003 Nation (public)	59*	227*	26*	74*	39*	10
Arizona	50*	223	29	71	35	7
2005 Nation (public)	57	228*	25*	75*	39*	10*
Arizona	46	224	30	70	37	10
2007 Nation (public)	56	230	23	77	42	10
Arizona	44	224	29	71	36	8
Black						
1992 ¹ Nation (public)	18	191*	69*	31*	8*	1*
Arizona	5	198	59	41	14	2
1994 ¹ Nation (public)	18	184*	72*	28*	8*	1
Arizona	4	188*	66*	34*	11	2
1998 ¹ Nation (public)	17	192*	66*	34*	9*	1
Arizona	5	193*	66*	34*	11	3
1998 Nation (public)	16	192*	66*	34*	10*	1
Arizona	5	191*	67*	33*	11	2
2002 Nation (public)	18	198*	61*	39*	12*	1
Arizona	6	199	58	42	17	5
2003 Nation (public)	17	197*	61*	39*	12*	2
Arizona	5	196	59	41	13	2
2005 Nation (public)	17	199*	59*	41*	12*	2
Arizona	5	193*	67*	33*	12	3
2007 Nation (public)	17	203	54	46	14	2
Arizona	5	206	48	52	20	2

See notes at end of table.

**Table
4-A**

The Nation's Report Card 2007 State Assessment

Percentage of fourth-grade public school students, average scale scores, and percentage at or above achievement levels in NAEP reading, by race/ethnicity, assessment year, and jurisdiction: Various years, 1992–2007—Continued

Race/ethnicity, year, and jurisdiction	Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
Hispanic						
1992 ¹ Nation (public)	7*	194*	63*	37*	10*	1
Arizona	23*	197	61	39	10	1
1994 ¹ Nation (public)	7*	186*	68*	32*	11	2
Arizona	25*	188*	67*	33*	13	3
1998 ¹ Nation (public)	10*	194*	62*	38*	12*	2
Arizona	29*	183*	71*	29*	7*	1
1998 Nation (public)	14*	192*	64*	36*	12*	2
Arizona	28*	188*	69*	31*	8	1
2002 Nation (public)	17*	199*	57*	43*	14*	2
Arizona	34*	188	68*	32*	10	2
2003 Nation (public)	18*	199*	57*	43*	14*	2
Arizona	36*	195	62	38	12	2
2005 Nation (public)	19*	201*	56*	44*	15*	2
Arizona	40	192	63	37	11	2
2007 Nation (public)	20	204	51	49	17	3
Arizona	44	197	58	42	13	2
Asian/Pacific Islander						
1992 ¹ Nation (public)	2*	215*	41*	59*	23*	4*
Arizona	1	‡	‡	‡	‡	‡
1994 ¹ Nation (public)	3*	217*	36*	64*	34	9
Arizona	3	186	65*	35*	16	6
1998 ¹ Nation (public)	2*	218*	39*	61*	31*	10
Arizona	2	‡	‡	‡	‡	‡
1998 Nation (public)	4	211*	45*	55*	27*	10
Arizona	2	‡	‡	‡	‡	‡
2002 Nation (public)	4*	223*	31*	69*	36*	9*
Arizona	2	222	30	70	30	5
2003 Nation (public)	4*	225*	31*	69*	37*	11
Arizona	2	225	32	68	38	11
2005 Nation (public)	4	227*	28*	72*	40*	12
Arizona	2	224	30	70	36	11
2007 Nation (public)	5	231	24	76	45	14
Arizona	2	229	20	80	46	10

See notes at end of table.

**Table
4-A**

The Nation's Report Card 2007 State Assessment

Percentage of fourth-grade public school students, average scale scores, and percentage at or above achievement levels in NAEP reading, by race/ethnicity, assessment year, and jurisdiction: Various years, 1992–2007—Continued

Race/ethnicity, year, and jurisdiction	Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
American Indian/Alaska Native						
1992 ¹ Nation (public)	1	‡	‡	‡	‡	‡
Arizona	9	179	82*	18*	3	#
1994 ¹ Nation (public)	1	212	40	60	31	7
Arizona	6	173	80*	20*	5	1
1998 ¹ Nation (public)	1*	‡	‡	‡	‡	‡
Arizona	5	190	66	34	11	#
1998 Nation (public)	1	‡	‡	‡	‡	‡
Arizona	6	174	78	22	7	1
2002 Nation (public)	1*	207	49	51	22	5
Arizona	6	180	76	24	7	1
2003 Nation (public)	1*	202*	53	47	16	2
Arizona	7*	182	75	25	6	#
2005 Nation (public)	1	205	51	49	19	3
Arizona	6	186	73	27	9	1
2007 Nation (public)	1	206	49	51	20	4
Arizona	4	187	67	33	9	2
Unclassified²						
1992 ¹ Nation (public)	#*	‡	‡	‡	‡	‡
Arizona	#	‡	‡	‡	‡	‡
1994 ¹ Nation (public)	#*	‡	‡	‡	‡	‡
Arizona	#	‡	‡	‡	‡	‡
1998 ¹ Nation (public)	#*	‡	‡	‡	‡	‡
Arizona	#	‡	‡	‡	‡	‡
1998 Nation (public)	#*	‡	‡	‡	‡	‡
Arizona	#	‡	‡	‡	‡	‡
2002 Nation (public)	1*	216	41	59	26	6
Arizona	#	‡	‡	‡	‡	‡
2003 Nation (public)	1*	220	34	66	31	7
Arizona	#	‡	‡	‡	‡	‡
2005 Nation (public)	1*	221	33	67	32	8
Arizona	#	‡	‡	‡	‡	‡
2007 Nation (public)	1	223	30	70	32	7
Arizona	#	‡	‡	‡	‡	‡

Rounds to zero.

‡ Reporting standards not met.

* Value is significantly different from the value for the same jurisdiction in 2007.

¹ Accommodations were not permitted for this assessment.

² The Unclassified category includes students whose school-reported race/ethnicity was "other" or unavailable, or was missing, and whose race/ethnicity category could not be determined from self-reported information.

NOTE: The NAEP grade 4 reading scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP reading scale: below Basic, 207 or lower; Basic, 208–237; Proficient, 238–267; and Advanced, 268 and above. All differences were tested for statistical significance at the .05 level using unrounded numbers. Detail may not sum to totals because of rounding. Performance comparisons may be affected by differences in exclusion rates for students with disabilities and English language learners in the NAEP samples and by changes in sample sizes. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1992–2007 Reading Assessments.

Grade 8 Scale Score Results by Race/Ethnicity

- In 2007, White students in Arizona had an average scale score that was higher than the scores of Black, Hispanic, and American Indian/Alaska Native students, but was not found to be significantly different from the score of Asian/Pacific Islander students.
- In 2007, the average scale scores of White, Black, Hispanic, and American Indian/Alaska Native students in Arizona were not found to be significantly different from the scores of their corresponding peers in 1998, 2002, 2003, and 2005.
- In 2007, Black students had an average score that was lower than that of White students by 21 points. In 1998, the average score for Black students was lower than that of White students by 21 points.
- In 2007, Hispanic students had an average score that was lower than that of White students by 28 points. In 1998, the average score for Hispanic students was lower than that of White students by 25 points.

Grade 8 Achievement-Level Results by Race/Ethnicity

- In Arizona in 2007, the percentage of White students performing at or above *Proficient* was greater than the percentages of Black, Hispanic, and American Indian/Alaska Native students, but was not found to be significantly different from the percentage of Asian/Pacific Islander students.
- In 2007, the percentages of White, Black, Hispanic, and American Indian/Alaska Native students in Arizona performing at or above *Proficient* were not found to be significantly different from the percentages of their respective peers in 1998, 2002, 2003, and 2005.

**Table
4-B**

The Nation's Report Card 2007 State Assessment

Percentage of eighth-grade public school students, average scale scores, and percentage at or above achievement levels in NAEP reading, by race/ethnicity, assessment year, and jurisdiction: Various years, 1998–2007

Race/ethnicity, year, and jurisdiction	Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
White						
1998 ¹ Nation (public)	68*	269	20	80	38	3
Arizona	61*	271	15	85	37	2
1998 Nation (public)	68*	268	21*	79*	37	3
Arizona	62*	269	17	83	35	2
2002 Nation (public)	64*	271	17	83	39	3
Arizona	56*	267	20	80	32	2
2003 Nation (public)	61*	270	18	82	39	4
Arizona	51	268	20	80	36	3
2005 Nation (public)	60*	269*	19*	81*	37	3
Arizona	49	267	21	79	34	3
2007 Nation (public)	58	270	17	83	38	3
Arizona	47	269	20	80	37	3
Black						
1998 ¹ Nation (public)	15*	241	51	49	11	#
Arizona	4	245	47	53	10	#
1998 Nation (public)	16*	242	50	50	11	#
Arizona	4	248	40	60	12	#
2002 Nation (public)	15*	244	46	54	13	#
Arizona	4	250	40	60	12	1
2003 Nation (public)	17	244	47	53	12	#
Arizona	5	245	48	52	16	#
2005 Nation (public)	17	242*	49*	51*	11	#
Arizona	6	242	47	53	12	#
2007 Nation (public)	17	244	46	54	12	#
Arizona	5	248	42	58	19	1

See notes at end of table.

**Table
4-B**

The Nation's Report Card 2007 State Assessment

Percentage of eighth-grade public school students, average scale scores, and percentage at or above achievement levels in NAEP reading, by race/ethnicity, assessment year, and jurisdiction: Various years, 1998–2007—Continued

Race/ethnicity, year, and jurisdiction	Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
Hispanic						
1998 ¹ Nation (public)	12*	243	47	53	14	#
Arizona	26*	245	47	53	12	#
1998 Nation (public)	12*	241	48	52	13	#
Arizona	26*	244	46	54	12	#
2002 Nation (public)	15*	245	44	56	14	#
Arizona	31*	242	49	51	11	#
2003 Nation (public)	15*	244	46	54	14	1
Arizona	36	240	49	51	12	#
2005 Nation (public)	17*	245	45*	55*	14	1
Arizona	37	242	51	49	11	1
2007 Nation (public)	18	246	43	57	14	1
Arizona	39	241	50	50	11	#
Asian/Pacific Islander						
1998 ¹ Nation (public)	3	265	25	75	32	3
Arizona	2	‡	‡	‡	‡	‡
1998 Nation (public)	4	261	27	73	30	3
Arizona	2	‡	‡	‡	‡	‡
2002 Nation (public)	4	265	25	75	34	3
Arizona	2	‡	‡	‡	‡	‡
2003 Nation (public)	4	268	22	78	38	5
Arizona	2	‡	‡	‡	‡	‡
2005 Nation (public)	4*	270	21	79	39	5
Arizona	2	‡	‡	‡	‡	‡
2007 Nation (public)	5	269	21	79	40	5
Arizona	2	277	15	85	48	8

See notes at end of table.

**Table
4-B**

The Nation's Report Card 2007 State Assessment

Percentage of eighth-grade public school students, average scale scores, and percentage at or above achievement levels in NAEP reading, by race/ethnicity, assessment year, and jurisdiction: Various years, 1998–2007—Continued

Race/ethnicity, year, and jurisdiction	Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
American Indian/Alaska Native						
1998 ¹ Nation (public)	#*	‡	‡	‡	‡	‡
Arizona	6	243	51	49	10	#
1998 Nation (public)	#*	‡	‡	‡	‡	‡
Arizona	6	238	55	45	7	#
2002 Nation (public)	1	252	36	64	18	1
Arizona	6	244	47	53	12	#
2003 Nation (public)	1	248	41	59	18	1
Arizona	6	238	55	45	8	#
2005 Nation (public)	1	251	39	61	18	1
Arizona	6	240	54	46	12	1
2007 Nation (public)	1	248	42	58	19	2
Arizona	7	233	58	42	9	1
Unclassified²						
1998 ¹ Nation (public)	#*	‡	‡	‡	‡	‡
Arizona	#	‡	‡	‡	‡	‡
1998 Nation (public)	#*	‡	‡	‡	‡	‡
Arizona	#	‡	‡	‡	‡	‡
2002 Nation (public)	1*	260	28	72	24	2
Arizona	#	‡	‡	‡	‡	‡
2003 Nation (public)	1*	261	27	73	28	2
Arizona	#	‡	‡	‡	‡	‡
2005 Nation (public)	1*	261	30	70	30	3
Arizona	#	‡	‡	‡	‡	‡
2007 Nation (public)	1	262	26	74	32	4
Arizona	#	‡	‡	‡	‡	‡

Rounds to zero.

‡ Reporting standards not met.

* Value is significantly different from the value for the same jurisdiction in 2007.

¹ Accommodations were not permitted for this assessment.

² The Unclassified category includes students whose school-reported race/ethnicity was "other" or unavailable, or was missing, and whose race/ethnicity category could not be determined from self-reported information.

NOTE: The NAEP grade 8 reading scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP reading scale: below Basic, 242 or lower; Basic, 243–280; Proficient, 281–322; and Advanced, 323 and above. All differences were tested for statistical significance at the .05 level using unrounded numbers. Detail may not sum to totals because of rounding. Performance comparisons may be affected by differences in exclusion rates for students with disabilities and English language learners in the NAEP samples and by changes in sample sizes. Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1998–2007 Reading Assessments.

Student Eligibility for the National School Lunch Program

NAEP collects data on eligibility for the federal program providing free or reduced-price school lunches. The free/reduced-price lunch component of the National School Lunch Program (NSLP) offered through the U.S. Department of Agriculture (USDA) is designed to ensure that children near or below the poverty line receive nourishing meals. Eligibility is determined through the USDA's Income Eligibility Guidelines, and results for this category of students are included as an indicator of lower family income. NAEP first collected information on participation in this program in 1996; therefore, cross-year comparisons to assessments prior to 1996 cannot be made.

Tables 5-A and 5-B show average scale scores and achievement-level data for public school students at grades 4 and 8 in Arizona and the nation by student eligibility for the National School Lunch program. In 1998 only, results were obtained for student samples for which accommodations were permitted and those for which accommodations were not permitted. However, in the text of this report, comparisons to 1998 results refer only to the sample for which accommodations were permitted.

Grade 4 Scale Score Results by Free/Reduced-Price School Lunch Eligibility

- In 2007, students in Arizona eligible for free/reduced-price lunch had an average reading scale score of 196. This was lower than that of students in Arizona not eligible for this program (224).
- In 2007, students who were eligible for free/reduced-price school lunch had an average score that was lower than that of students who were not eligible for free/reduced-price school lunch by 29 points. In 1998, the average score for students who were eligible for free/reduced-price school lunch was lower than the score of those not eligible by 32 points.
- Students in Arizona eligible for free/reduced-price lunch had an average scale score (196) in 2007 that was lower than that of students in the nation who were eligible (205).
- In Arizona, students eligible for free/reduced-priced lunch had an average reading scale score in 2007 that was not found to be significantly different from that of eligible students in 1998, 2002, 2003, and 2005.

Grade 4 Achievement-Level Results by Free/Reduced-Price School Lunch Eligibility

- In Arizona in 2007, 13 percent of students who were eligible for free/reduced-price lunch and 36 percent of those who were not eligible for this program performed at or above *Proficient*. These percentages were found to be significantly different from one another.
- For students in Arizona in 2007 who were eligible for free/reduced-price lunch, the percentage at or above *Proficient* (13 percent) was not significantly different from the corresponding percentage for their counterparts around the nation (17 percent).
- In Arizona, the percentage of students eligible for free/reduced-priced lunch who performed at or above *Proficient* for 2007 was not found to be significantly different from the corresponding percentages for 1998, 2002, 2003, and 2005.

**Table
5-A**

The Nation's Report Card 2007 State Assessment

Percentage of fourth-grade public school students, average scale scores, and percentage at or above achievement levels in NAEP reading, by eligibility for National School Lunch Program, assessment year, and jurisdiction: Various years, 1998–2007

Eligibility status, year, and jurisdiction	Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
Eligible						
1998 ¹ Nation (public)	38*	198*	58*	42*	13*	1
Arizona	41*	188	67	33	9	2
1998 Nation (public)	41	195*	61*	39*	12*	1*
Arizona	39*	189	67*	33*	10	2
2002 Nation (public)	43	202*	54*	46*	16	2
Arizona	45	191	65	35	11	2
2003 Nation (public)	44*	201*	56*	44*	15*	2
Arizona	47	194	63	37	11	1
2005 Nation (public)	45	203*	54*	46*	15*	2
Arizona	48	192	63	37	12	2
2007 Nation (public)	45	205	50	50	17	2
Arizona	51	196	59	41	13	2
Not eligible						
1998 ¹ Nation (public)	54	226*	28*	72*	39*	10
Arizona	45	222	31	69	33	7
1998 Nation (public)	51	226*	28*	72*	39*	10*
Arizona	45	221	34	66	32	7
2002 Nation (public)	50*	229*	24*	76*	41*	10*
Arizona	37*	219	34	66	32	7
2003 Nation (public)	52*	229*	25*	75*	41*	11*
Arizona	43	225	28	72	36	8
2005 Nation (public)	53*	230*	23*	77*	42*	11*
Arizona	39	223	31	69	36	9
2007 Nation (public)	54	232	21	79	44	12
Arizona	46	224	28	72	36	8
Information not available						
1998 ¹ Nation (public)	7*	225	30	70	38	10
Arizona	14*	212	43	57	25	5
1998 Nation (public)	7*	219	35	65	33	9
Arizona	16*	208	47	53	22	4
2002 Nation (public)	7*	217	38	62	30	7
Arizona	18*	213	41	59	29	6
2003 Nation (public)	4*	219	35	65	33	8
Arizona	11	211	43	57	27	4
2005 Nation (public)	2*	218	38	62	32	8
Arizona	14*	213	42	58	28	8
2007 Nation (public)	1	220	34	66	33	9
Arizona	3	218	37	63	31	5

* Value is significantly different from the value for the same jurisdiction in 2007.

¹ Accommodations were not permitted for this assessment.

NOTE: The NAEP grade 4 reading scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP reading scale: below Basic, 207 or lower; Basic, 208–237; Proficient, 238–267; and Advanced, 268 and above. All differences were tested for statistical significance at the .05 level using unrounded numbers. Detail may not sum to totals because of rounding. Performance comparisons may be affected by differences in exclusion rates for students with disabilities and English language learners in the NAEP samples and by changes in sample sizes.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1998–2007 Reading Assessments.

Grade 8 Scale Score Results by Free/Reduced-Price School Lunch Eligibility

- In 2007, students in Arizona eligible for free/reduced-price lunch had an average reading scale score of 241. This was lower than that of students in Arizona not eligible for this program (265).
- In 2007, students who were eligible for free/reduced-price school lunch had an average score that was lower than that of students who were not eligible for free/reduced-price school lunch by 24 points. In 1998, the average score for students who were eligible for free/reduced-price school lunch was lower than the score of those not eligible by 23 points.
- Students in Arizona eligible for free/reduced-price lunch had an average scale score (241) in 2007 that was lower than that of students in the nation who were eligible (247).
- In Arizona, students eligible for free/reduced-priced lunch had an average reading scale score in 2007 that was not found to be significantly different from that of eligible students in 1998, 2002, 2003, and 2005.

Grade 8 Achievement-Level Results by Free/Reduced-Price School Lunch Eligibility

- In Arizona in 2007, 11 percent of students who were eligible for free/reduced-price lunch and 34 percent of those who were not eligible for this program performed at or above *Proficient*. These percentages were found to be significantly different from one another.
- For students in Arizona in 2007 who were eligible for free/reduced-price lunch, the percentage at or above *Proficient* (11 percent) was smaller than the corresponding percentage for their counterparts around the nation (15 percent).
- In Arizona, the percentage of students eligible for free/reduced-priced lunch who performed at or above *Proficient* for 2007 was not found to be significantly different from the corresponding percentages for 1998, 2002, 2003, and 2005.

**Table
5-B**

The Nation's Report Card 2007 State Assessment

Percentage of eighth-grade public school students, average scale scores, and percentage at or above achievement levels in NAEP reading, by eligibility for National School Lunch Program, assessment year, and jurisdiction: Various years, 1998–2007

Eligibility status, year, and jurisdiction	Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
Eligible						
1998 ¹ Nation (public)	30*	246	44	56	15	#
Arizona	34*	245	46	54	13	#
1998 Nation (public)	30*	245*	45*	55*	14	#
Arizona	32*	246	45	55	12	#
2002 Nation (public)	34*	249*	40	60	17*	1
Arizona	35*	242	50	50	12	#
2003 Nation (public)	36*	246*	44*	56*	15	1
Arizona	38	241	49	51	12	1
2005 Nation (public)	39*	247	43*	57*	15	1
Arizona	41	242	50	50	11	#
2007 Nation (public)	40	247	42	58	15	1
Arizona	44	241	50	50	11	1
Not eligible						
1998 ¹ Nation (public)	58	269	20*	80*	38	3
Arizona	53	270	16*	84*	37	2
1998 Nation (public)	58	268*	21*	79*	37	3
Arizona	53	269	18*	82*	36	2
2002 Nation (public)	57	271	17	83	40	3
Arizona	52	266	21	79	31	2
2003 Nation (public)	58	271	18	82	39	4
Arizona	50	265	23	77	34	2
2005 Nation (public)	59	270*	19*	81*	38	4
Arizona	43*	265	23	77	32	2
2007 Nation (public)	58	271	18	82	39	4
Arizona	54	265	24	76	34	3
Information not available						
1998 ¹ Nation (public)	12*	265	25	75	35	4
Arizona	13*	264	23	77	29	1
1998 Nation (public)	11*	264	27	73	34	3
Arizona	14*	259	28	72	26	1
2002 Nation (public)	10*	264	25	75	32	4
Arizona	13*	259	29	71	25	1
2003 Nation (public)	6*	262	28	72	31	3
Arizona	12*	258	31	69	29	3
2005 Nation (public)	3*	258	31	69	28	3
Arizona	15*	261	30	70	29	3
2007 Nation (public)	1	255	34	66	27	3
Arizona	3	272	22	78	44	5

Rounds to zero.

* Value is significantly different from the value for the same jurisdiction in 2007.

¹ Accommodations were not permitted for this assessment.

NOTE: The NAEP grade 8 reading scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP reading scale: below Basic, 242 or lower; Basic, 243–280; Proficient, 281–322; and Advanced, 323 and above. All differences were tested for statistical significance at the .05 level using unrounded numbers. Detail may not sum to totals because of rounding. Performance comparisons may be affected by differences in exclusion rates for students with disabilities and English language learners in the NAEP samples and by changes in sample sizes.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1998–2007 Reading Assessments.

Type of Location

Schools that participated in the assessment were classified as being located in four mutually exclusive types of community: city, suburb, town, and rural. These categories indicate the geographic locations of schools. "City" is a geographical term meaning the principal city of a U.S. Census Bureau-defined Core-Based Statistical Area and is not synonymous with "inner city." The criteria for classifying schools with respect to type of location changed for 2007; therefore, comparisons with prior years are not provided. More detail on the changes for the classification of type of location is available at http://nces.ed.gov/ccd/Rural_Locales.asp.

Tables 6-A and 6-B show average scale scores and achievement-level data for public school students at grades 4 and 8 in Arizona and the nation by type of location (for 2007 only).

Grade 4 Scale Score Results by Type of Location

- In 2007 in Arizona, the average scale score of students attending schools in city locations was not found to be significantly different from the scores of students in suburban, town, and rural schools.
- In 2007, students attending public schools in city and rural locations in Arizona had average scale scores that were lower than the average scale scores of students in city and rural locations in the nation.
- In 2007, students attending public schools in suburban and town locations in Arizona had average scale scores that were not significantly different from the average scale scores of students in suburban and town locations in the nation.

Grade 4 Achievement-Level Results by Type of Location

- In 2007, the percentage of students in Arizona's public schools in city locations who performed at or above *Proficient* was not found to be significantly different from the corresponding percentages of students in suburban, town, and rural schools.
- The percentage of students in Arizona's public schools in rural locations who performed at or above *Proficient* in 2007 was lower than that of students in rural locations in the nation.
- The percentages of students in Arizona's public schools in city, suburban, and town locations who performed at or above *Proficient* in 2007 were not found to be significantly different from those of students in city, suburban, and town locations in the nation.

**Table
6-A**

The Nation's Report Card 2007 State Assessment

Percentage of fourth-grade public school students, average scale scores, and percentage at or above achievement levels in NAEP reading, by type of location, assessment year, and jurisdiction: 2007

Type of location, year, and jurisdiction	Percentage of students	Average scale score	Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
City						
2007 Nation (public)	29*	213*	43	57	25	6*
Arizona	51	207	47	53	22	4
Suburb						
2007 Nation (public)	37*	224	29*	71*	37	9
Arizona	24	217	37	63	31	7
Town						
2007 Nation (public)	12	218	35	65	29	6
Arizona	12	210	43	57	21	3
Rural						
2007 Nation (public)	22*	222*	31*	69*	33*	7*
Arizona	13	206	49	51	22	3

* Value is significantly different from the value for Arizona.

NOTE: The NAEP grade 4 reading scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP reading scale: below *Basic*, 207 or lower; *Basic*, 208–237; *Proficient*, 238–267; and *Advanced*, 268 and above. All differences were tested for statistical significance at the .05 level using unrounded numbers. Detail may not sum to totals because of rounding. Performance comparisons may be affected by differences in exclusion rates for students with disabilities and English language learners in the NAEP samples and by changes in sample sizes.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 Reading Assessment.

Grade 8 Scale Score Results by Type of Location

- In 2007 in Arizona, the average scale score of students attending schools in city locations was not found to be significantly different from the scores of students in suburban, town, and rural schools.
- In 2007, students attending public schools in town locations in Arizona had an average scale score that was lower than the average scale score of students in town locations in the nation.
- In 2007, students attending public schools in city, suburban, and rural locations in Arizona had average scale scores that were not significantly different from the average scale scores of students in city, suburban, and rural locations in the nation.

Grade 8 Achievement-Level Results by Type of Location

- In 2007, the percentage of students in Arizona's public schools in city locations who performed at or above *Proficient* was not found to be significantly different from the corresponding percentages of students in suburban, town, and rural schools.
- The percentage of students in Arizona's public schools in town locations who performed at or above *Proficient* in 2007 was lower than that of students in town locations in the nation.
- The percentages of students in Arizona's public schools in city, suburban, and rural locations who performed at or above *Proficient* in 2007 were not found to be significantly different from those of students in city, suburban, and rural locations in the nation.

**Table
6-B**

The Nation's Report Card 2007 State Assessment

Percentage of eighth-grade public school students, average scale scores, and percentage at or above achievement levels in NAEP reading, by type of location, assessment year, and jurisdiction: 2007

Type of location, year, and jurisdiction	Percentage of students	Average scale score	Below <i>Basic</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>	At <i>Advanced</i>
City						
2007 Nation (public)	28*	254	36	64	23	2
Arizona	45	252	39	61	23	2
Suburb						
2007 Nation (public)	36*	265	24	76	34	3
Arizona	22	260	30	70	29	2
Town						
2007 Nation (public)	13	261*	27*	73*	28*	2
Arizona	13	253	37	63	22	1
Rural						
2007 Nation (public)	22	264	24	76	31	2
Arizona	20	257	32	68	24	2

* Value is significantly different from the value for Arizona.

NOTE: The NAEP grade 8 reading scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP reading scale: below *Basic*, 242 or lower; *Basic*, 243–280; *Proficient*, 281–322; and *Advanced*, 323 and above. All differences were tested for statistical significance at the .05 level using unrounded numbers. Detail may not sum to totals because of rounding. Performance comparisons may be affected by differences in exclusion rates for students with disabilities and English language learners in the NAEP samples and by changes in sample sizes.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 Reading Assessment.

Parents' Highest Level of Education

Eighth-grade students who participated in the NAEP 2007 assessment were asked to indicate the highest level of education they thought their father and their mother had completed. Five response options—did not finish high school, graduated from high school, some education after high school, graduated from college, and "I don't know"—were offered. The highest level of education reported for either parent was used in the analysis. Fourth-graders' replies to this question are not provided in NAEP reports because their responses in previous NAEP assessments were unreliable, and a large percentage of them chose the "I don't know" option.

The results by highest level of parental education are shown in table 7.

Grade 8 Scale Score Results by Parents' Highest Level of Education

- In 2007, students in Arizona who reported that a parent had graduated from college had an average scale score that was higher than the average scores of students with a parent in any of the following education categories: did not finish high school, graduated from high school, and some education after high school.
- In 2007, the average scale score for students in Arizona who reported that a parent had graduated from college, or had not finished high school, or had graduated from high school was not found to be significantly different from the scores of students in 1998, 2002, 2003, and 2005.
- In 2007, the average scale score for students in Arizona who reported that a parent had some education after high school was lower than the score of students in 1998, but not found to be significantly different from the scores of students in 2002, 2003, and 2005.

Grade 8 Achievement-Level Results by Parents' Highest Level of Education

- In 2007, the percentage of students performing at or above *Proficient* in Arizona who reported that a parent had graduated from college was higher than the percentage for students whose parents' highest level of education was in any of the following education categories: did not finish high school, graduated from high school, and some education after high school.
- In 2007, the respective percentages of students reporting that a parent had graduated from college, or had not finished high school, or had graduated from high school, or had some education after high school who performed at or above *Proficient* were not found to be significantly different from the corresponding percentages of students in 1998, 2002, 2003, and 2005.

**Table
7**

The Nation's Report Card 2007 State Assessment

Percentage of eighth-grade public school students, average scale scores, and percentage at or above achievement levels in NAEP reading, by student-reported highest level of parental education, assessment year, and jurisdiction: Various years, 1998–2007

Parental education level, year, and jurisdiction	Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
Did not finish high school						
1998 ¹ Nation (public)	8	242	49	51	11	#
Arizona	10	243	48	52	9	#
1998 Nation (public)	8	242	49	51	11	#
Arizona	10*	244	46	54	12	#
2002 Nation (public)	7*	247*	42	58	14	#
Arizona	9*	241	50	50	10	#
2003 Nation (public)	7*	245	45	55	13	#
Arizona	10	238	51	49	10	#
2005 Nation (public)	8	244	47*	53*	12	#
Arizona	11	238	54	46	7	#
2007 Nation (public)	8	245	44	56	12	#
Arizona	12	242	49	51	11	#
Graduated from high school						
1998 ¹ Nation (public)	23*	253	36	64	21	1
Arizona	19*	253	35	65	20	#
1998 Nation (public)	23*	253	36	64	20	1
Arizona	19*	252	35	65	17	#
2002 Nation (public)	18*	256*	31*	69*	21*	1
Arizona	17	251	36	64	15	#
2003 Nation (public)	18*	253	35	65	19	1
Arizona	17	248	41	59	14	1
2005 Nation (public)	18*	252	37	63	18	1
Arizona	16	247	43	57	13	1
2007 Nation (public)	17	252	36	64	18	1
Arizona	16	247	44	56	16	1

See notes at end of table.

**Table
7**

The Nation's Report Card 2007 State Assessment

Percentage of eighth-grade public school students, average scale scores, and percentage at or above achievement levels in NAEP reading, by student-reported highest level of parental education, assessment year, and jurisdiction: Various years, 1998–2007—Continued

Parental education level, year, and jurisdiction	Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
Some education after high school						
1998 ¹ Nation (public)	18	268	20	80	35	2
Arizona	19*	267*	20*	80*	31	2
1998 Nation (public)	18	267	22	78	34	2
Arizona	20*	266*	20*	80*	31	1
2002 Nation (public)	20*	267*	19*	81*	33	2
Arizona	21*	262	25	75	26	1
2003 Nation (public)	18*	266	21	79	32	2
Arizona	17	264	22	78	32	2
2005 Nation (public)	18	265	23	77	31	2
Arizona	17	263	24	76	30	1
2007 Nation (public)	17	265	21	79	31	2
Arizona	16	259	29	71	27	2
Graduated from college						
1998 ¹ Nation (public)	42*	272	18	82	42	4
Arizona	40	272*	15*	85*	39	3
1998 Nation (public)	42*	271	19	81	41	4
Arizona	39	271	15*	85*	38	2
2002 Nation (public)	46	273*	17*	83*	42*	4
Arizona	41	268	19	81	35	2
2003 Nation (public)	46	271	19	81	41	4
Arizona	40	268	22	78	37	3
2005 Nation (public)	46	270	20*	80*	40	4
Arizona	39	267	23	77	35	3
2007 Nation (public)	46	271	18	82	40	4
Arizona	41	267	23	77	36	4

See notes at end of table.

**Table
7**

The Nation's Report Card 2007 State Assessment

Percentage of eighth-grade public school students, average scale scores, and percentage at or above achievement levels in NAEP reading, by student-reported highest level of parental education, assessment year, and jurisdiction: Various years, 1998–2007—Continued

Parental education level, year, and jurisdiction	Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
Unknown						
1998 ¹ Nation (public)	10*	241	51	49	12	#
Arizona	11*	242	50	50	11	#
1998 Nation (public)	9*	241	49	51	12	#
Arizona	12*	240	52	48	9	#
2002 Nation (public)	9*	246*	44*	56*	14	#
Arizona	12*	242	49	51	10	#
2003 Nation (public)	11	242	48	52	13	#
Arizona	16	237	54	46	9	#
2005 Nation (public)	11*	242	49	51	12	#
Arizona	16	238	55	45	9	#
2007 Nation (public)	11	243	47	53	12	1
Arizona	15	238	53	47	9	#

Rounds to zero.

* Value is significantly different from the value for the same jurisdiction in 2007.

¹ Accommodations were not permitted for this assessment.

NOTE: The NAEP grade 8 reading scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP reading scale: below Basic, 242 or lower; Basic, 243–280; Proficient, 281–322; and Advanced, 323 and above. All differences were tested for statistical significance at the .05 level using unrounded numbers. Detail may not sum to totals because of rounding. Performance comparisons may be affected by differences in exclusion rates for students with disabilities and English language learners in the NAEP samples and by changes in sample sizes.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1998–2007 Reading Assessments.

Toward a More Inclusive NAEP: Students With Disabilities and English Language Learners

It is important to assess all students selected in the complex statistical sampling process, including students with disabilities (SD) and students who are classified by their schools as English language learners (ELL). Some students sampled for participation in NAEP can be excluded from the sample according to carefully defined criteria.

School staff make the decisions about whether to include an SD or ELL student in a NAEP assessment, and which testing accommodations, if any, they should receive. The NAEP program furnishes tools to assist school personnel in making those decisions.

A sampling procedure is used to select students at each grade being tested. Students are selected on a random basis, without regard to SD or ELL status. Once the students are selected, the schools identify which have SD or ELL status. School staff who are familiar with these students are asked a series of questions to help them decide whether each student should participate in the assessment and whether the student needs accommodations.

Inclusion in NAEP of an SD or ELL student is encouraged if that student (a) participated in the regular state academic assessment in the subject being tested, and (b) if that student can participate in NAEP with the accommodations NAEP allows. Even if the student did not participate in the regular state assessment, or took the state's alternate assessment, or if he/she needs accommodations NAEP does not allow, school staff are asked whether that student could participate in NAEP with the allowable accommodations. (Examples of testing accommodations not allowed in NAEP are giving the reading assessment in a language other than English, or reading the reading passages aloud to the student. Also, extending testing over several days is not allowed for NAEP because NAEP administrators are in each school only one day.)

The results displayed in this report and in other publications of the NAEP 2007 reading results are based on representative samples that include SD and ELL students who were assessed either with or without accommodations, based on NAEP's guidelines.

Percentages of students excluded from NAEP may vary considerably across states, and, within a state, across years. Comparisons of results across states and within a state across years should be interpreted with caution if the exclusion rates vary widely. The percentages of assessed students classified as SD or ELL, as well as their NAEP performance in each participating state and jurisdiction, are available in an interactive database at the NAEP website at <http://nces.ed.gov/nationsreportcard/>.

Prior to 1998, no testing accommodations were made available to the students with disabilities and English language learners in the samples in state NAEP reading assessments that served as the basis for reported results. In the 1998 national and state reading assessments and the 2000 national (grade 4 only) reading assessment, NAEP researchers drew a second representative sample of schools. Accommodations were made available for students in this sample who required them, provided the accommodation did not change the nature of what was tested. For example, students could be assessed one-on-one or in small groups, receive extended time, or use a large-print test book. However, in the reading assessment, students were not permitted to have passages or test items read aloud or translated into another language. These comparable samples were used to study the effects of allowing accommodations for SD and ELL students in the assessments. A series of technical research papers covering various NAEP subject areas has been published with the results of these comparisons (visit <http://nces.ed.gov/nationsreportcard/about/inclusion.asp#research>).

Tables 8-A and 8-B display the percentages of students with disabilities and English language learners in Arizona identified, excluded, and assessed under standard and accommodated conditions at grades 4 and 8.

Tables 9-A and 9-B show the percentage of students assessed in Arizona by disability status and their performance on the NAEP assessment in terms of average scale scores and percentages performing below *Basic*, at or above *Basic*, at or above *Proficient*, and at *Advanced* for grades 4 and 8.

Tables 10-A and 10-B present the percentage of students assessed in Arizona by ELL status, their average

scale scores, and their performance in terms of the percentage below *Basic*, the percentages at or above *Basic*, at or above *Proficient*, and at *Advanced*.

Table 11 presents the total number of grade 4 and grade 8 students assessed and the percentage of students sampled who were excluded.

**Table
8-A**

The Nation's Report Card 2007 State Assessment

**Fourth-grade public school students identified as students with disabilities (SD) and/or English language learners (ELL) in NAEP reading, by assessment year and testing status as a percentage of all students:
Various years, 1992–2007**

Year and testing status		SD and/or ELL		SD		ELL	
		Arizona	Nation	Arizona	Nation	Arizona	Nation
1992 ¹	Identified	16	11	8	8	10	3
	Excluded	7	6	5	5	3	2
	Assessed under standard conditions	9	4	3	3	6	1
1994 ¹	Identified	21	14	10	11	11	4
	Excluded	7	6	4	5	3	2
	Assessed under standard conditions	14	8	6	6	8	2
1998 ¹	Identified	22	17	10	12	14	6
	Excluded	10	10	5	7	6	4
	Assessed under standard conditions	12	7	5	5	8	2
1998	Identified	22	18	10	11	14	7
	Excluded	10	7	5	5	6	3
	Assessed under standard conditions	10	7	4	4	6	4
	Assessed with accommodations	1	3	1	3	1	1
2002	Identified	28	21	11	13	21	9
	Excluded	8	7	5	5	5	2
	Assessed under standard conditions	18	10	5	4	15	6
	Assessed with accommodations	3	4	2	4	1	1
2003	Identified	28	22	11	14	21	10
	Excluded	7	6	5	5	4	2
	Assessed under standard conditions	18	10	4	4	15	7
	Assessed with accommodations	2	5	2	5	1	1
2005	Identified	29	23	12	14	20	11
	Excluded	6	7	4	5	3	2
	Assessed under standard conditions	16	10	3	4	13	7
	Assessed with accommodations	7	7	4	5	3	2
2007	Identified	25	23	11	14	17	11
	Excluded	6	6	4	5	4	2
	Assessed under standard conditions	13	10	3	3	10	7
	Assessed with accommodations	6	7	4	6	2	2

¹ Accommodations were not permitted for this assessment.

NOTE: Students identified as both SD and ELL were counted only once under the combined SD and/or ELL category, but were counted separately under the SD and ELL categories. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1992–2007 Reading Assessments.

**Table
8-B****The Nation's Report Card 2007 State Assessment**

**Eighth-grade public school students identified as students with disabilities (SD) and/or English language learners (ELL) in NAEP reading, by assessment year and testing status as a percentage of all students:
Various years, 1998–2007**

Year and testing status	SD and/or ELL		SD		ELL	
	Arizona	Nation	Arizona	Nation	Arizona	Nation
1998 ¹ Identified	17	14	9	11	9	3
Excluded	7	6	5	6	2	1
Assessed under standard conditions	11	7	4	5	7	2
1998 Identified	17	14	9	11	9	3
Excluded	5	4	3	3	3	1
Assessed under standard conditions	10	7	4	5	6	2
Assessed with accommodations	1	3	1	2	#	#
2002 Identified	21	18	11	13	13	6
Excluded	5	6	4	5	3	2
Assessed under standard conditions	14	8	6	5	10	4
Assessed with accommodations	2	4	2	4	#	1
2003 Identified	25	19	12	14	17	6
Excluded	6	5	5	4	4	2
Assessed under standard conditions	15	8	5	5	12	4
Assessed with accommodations	3	5	3	5	1	1
2005 Identified	23	19	11	13	13	6
Excluded	4	5	3	4	2	1
Assessed under standard conditions	11	7	3	3	8	4
Assessed with accommodations	8	6	5	6	3	1
2007 Identified	19	19	11	13	11	7
Excluded	5	5	4	5	3	2
Assessed under standard conditions	9	7	3	3	7	4
Assessed with accommodations	4	7	4	6	1	1

¹ Accommodations were not permitted for this assessment.

Rounds to zero.

NOTE: Students identified as both SD and ELL were counted only once under the combined SD and/or ELL category, but were counted separately under the SD and ELL categories. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1998–2007 Reading Assessments.

**Table
9-A****The Nation's Report Card 2007 State Assessment**

Percentage of assessed fourth-grade public school students, average scale scores, and percentage at or above achievement levels in NAEP reading, by students with disabilities (SD) status, assessment year, and jurisdiction: Various years, 1998–2007

SD status, year, and jurisdiction	Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
SD						
1998 ¹ Nation (public)	‡	‡	‡	‡	‡	‡
Arizona	‡	‡	‡	‡	‡	‡

1998 Nation (public)	7*	176*	76*	24*	8	1
Arizona	6*	172	83	17	4	#
2002 Nation (public)	8*	187*	71*	29*	9*	1*
Arizona	7	175	75	25	5	#
2003 Nation (public)	10	184*	71*	29*	9*	1*
Arizona	7	177	77	23	6	1
2005 Nation (public)	10	190	67*	33*	11*	2*
Arizona	8	174	75	25	9	3
2007 Nation (public)	10	190	64	36	13	2
Arizona	8	180	74	26	10	1
Not SD						
1998 ¹ Nation (public)	‡	‡	‡	‡	‡	‡
Arizona	‡	‡	‡	‡	‡	‡
1998 Nation (public)	93*	216*	40*	60*	29*	7*
Arizona	94*	209	47*	53*	23	5
2002 Nation (public)	92*	220*	35*	65*	31*	7*
Arizona	93	208	47	53	23	5
2003 Nation (public)	90	220*	35*	65*	32*	8
Arizona	93	211	44	56	25	5
2005 Nation (public)	90	220*	34*	66*	32*	7*
Arizona	92	210	45	55	25	6
2007 Nation (public)	90	223	31	69	34	8
Arizona	92	212	42	58	26	5

Rounds to zero.

‡ Reporting standards not met.

* Value is significantly different from the value for the same jurisdiction in 2007.

¹ Accommodations were not permitted for this assessment.

NOTE: The NAEP grade 4 reading scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP reading scale: below *Basic*, 207 or lower; *Basic*, 208–237; *Proficient*, 238–267; and *Advanced*, 268 and above. All differences were tested for statistical significance at the .05 level using unrounded numbers. Detail may not sum to totals because of rounding. Performance comparisons may be affected by differences in exclusion rates for students with disabilities and English language learners in the NAEP samples and by changes in sample sizes.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1998–2007 Reading Assessments.

**Table
9-B**

The Nation's Report Card 2007 State Assessment

Percentage of assessed eighth-grade public school students, average scale scores, and percentage at or above achievement levels in NAEP reading, by students with disabilities (SD) status, assessment year, and jurisdiction: Various years, 1998–2007

SD status, year, and jurisdiction	Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
SD						
1998 ¹ Nation (public)	‡	‡	‡	‡	‡	‡
Arizona	‡	‡	‡	‡	‡	‡
1998 Nation (public)	8	224	69	31	6	#
Arizona	6	225	76	24	5	#
2002 Nation (public)	9	227	65	35	6	#
Arizona	8	222	73	27	4	#
2003 Nation (public)	10*	224*	68	32	5*	#
Arizona	8	214	80	20	3	#
2005 Nation (public)	9*	226	67	33	6	#
Arizona	8	217	78	22	2	#
2007 Nation (public)	9	226	66	34	7	#
Arizona	7	218	76	24	5	#
Not SD						
1998 ¹ Nation (public)	‡	‡	‡	‡	‡	‡
Arizona	‡	‡	‡	‡	‡	‡
1998 Nation (public)	92	264	25	75	32	2
Arizona	94	262*	25*	75*	28	1
2002 Nation (public)	91	266*	22*	78*	33*	3
Arizona	92	260	28	72	25	1
2003 Nation (public)	90*	266*	23	77	33*	3*
Arizona	92	259	30	70	27	2
2005 Nation (public)	91*	264	25*	75*	31	3
Arizona	92	258	31	69	25	2
2007 Nation (public)	91	265	24	76	31	3
Arizona	93	258	32	68	26	2

Rounds to zero.

‡ Reporting standards not met.

* Value is significantly different from the value for the same jurisdiction in 2007.

¹ Accommodations were not permitted for this assessment.

NOTE: The NAEP grade 8 reading scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP reading scale: below *Basic*, 242 or lower; *Basic*, 243–280; *Proficient*, 281–322; and *Advanced*, 323 and above. All differences were tested for statistical significance at the .05 level using unrounded numbers. Detail may not sum to totals because of rounding. Performance comparisons may be affected by differences in exclusion rates for students with disabilities and English language learners in the NAEP samples and by changes in sample sizes.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1998–2007 Reading Assessments.

**Table
10-A**

The Nation's Report Card 2007 State Assessment

Percentage of assessed fourth-grade public school students, average scale scores, and percentage at or above achievement levels in NAEP reading, by English language learners (ELL) status, assessment year, and jurisdiction: Various years, 1998–2007

ELL status, year, and jurisdiction	Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
ELL						
1998 ¹ Nation (public)	‡	‡	‡	‡	‡	‡
Arizona	‡	‡	‡	‡	‡	‡
1998 Nation (public)	5*	174*	79*	21*	6	1
Arizona	8*	166	87	13	2	#
2002 Nation (public)	7*	183	76*	24*	5	#
Arizona	17	172	83	17	4	1
2003 Nation (public)	8*	186	72	28	7	1
Arizona	18	177*	81	19	4	#
2005 Nation (public)	9	187	73*	27*	7	1
Arizona	18	175	81	19	4	#
2007 Nation (public)	9	188	70	30	7	1
Arizona	14	166	84	16	3	#
Not ELL						
1998 ¹ Nation (public)	‡	‡	‡	‡	‡	‡
Arizona	‡	‡	‡	‡	‡	‡
1998 Nation (public)	95*	215*	41*	59*	29*	7*
Arizona	92*	210*	46*	54*	24	5
2002 Nation (public)	93*	219*	35*	65*	32*	7*
Arizona	83	212	43	57	25	5
2003 Nation (public)	92*	219*	35*	65*	32*	8*
Arizona	82	216	38	62	28	5
2005 Nation (public)	91	220*	34*	66*	32*	7*
Arizona	82	214	41	59	28	7
2007 Nation (public)	91	223	31	69	34	8
Arizona	86	216	38	62	28	5

Rounds to zero.

‡ Reporting standards not met.

* Value is significantly different from the value for the same jurisdiction in 2007.

¹ Accommodations were not permitted for this assessment.

NOTE: The NAEP grade 4 reading scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP reading scale: below Basic, 207 or lower; Basic, 208–237; Proficient, 238–267; and Advanced, 268 and above. All differences were tested for statistical significance at the .05 level using unrounded numbers. Detail may not sum to totals because of rounding. Performance comparisons may be affected by differences in exclusion rates for students with disabilities and English language learners in the NAEP samples and by changes in sample sizes.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1998–2007 Reading Assessments.

**Table
10-B**

The Nation's Report Card 2007 State Assessment

Percentage of assessed eighth-grade public school students, average scale scores, and percentage at or above achievement levels in NAEP reading, by English language learners (ELL) status, assessment year, and jurisdiction: Various years, 1998–2007

ELL status, year, and jurisdiction	Percentage of students	Average scale score	Below Basic	At or above Basic	At or above Proficient	At Advanced
ELL						
1998 ¹ Nation (public)	‡	‡	‡	‡	‡	‡
Arizona	‡	‡	‡	‡	‡	‡
1998 Nation (public)	2*	217	77	23	3	#
Arizona	7	225*	68	32	1	#
2002 Nation (public)	5*	224	71	29	4	#
Arizona	11	228*	69	31	3	#
2003 Nation (public)	5	222	71	29	5	#
Arizona	14*	219	74	26	3	#
2005 Nation (public)	5	224	71	29	4	#
Arizona	12	225*	75	25	3	#
2007 Nation (public)	6	222	71	29	4	#
Arizona	9	214	80	20	4	#
Not ELL						
1998 ¹ Nation (public)	‡	‡	‡	‡	‡	‡
Arizona	‡	‡	‡	‡	‡	‡
1998 Nation (public)	98*	262	28*	72*	30	2
Arizona	93	263*	25*	75*	29	1
2002 Nation (public)	95*	265*	24	76	32	3
Arizona	89	260	27	73	26	1
2003 Nation (public)	95	263	25	75	31	3*
Arizona	86*	261	27	73	29	2
2005 Nation (public)	95	262*	27*	73*	30	3
Arizona	88	259	30	70	26	2
2007 Nation (public)	94	263	25	75	31	2
Arizona	91	259	31	69	26	2

Rounds to zero.

‡ Reporting standards not met.

* Value is significantly different from the value for the same jurisdiction in 2007.

¹ Accommodations were not permitted for this assessment.

NOTE: The NAEP grade 8 reading scale ranges from 0 to 500. Achievement levels correspond to the following points on the NAEP reading scale: below Basic, 242 or lower; Basic, 243–280; Proficient, 281–322; and Advanced, 323 and above. All differences were tested for statistical significance at the .05 level using unrounded numbers. Detail may not sum to totals because of rounding. Performance comparisons may be affected by differences in exclusion rates for students with disabilities and English language learners in the NAEP samples and by changes in sample sizes.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1998–2007 Reading Assessments.

**Table
11****The Nation's Report Card 2007 State Assessment****Number of fourth- and eighth-grade public school students assessed in NAEP reading and percentage excluded, by state: 2007**

State/jurisdiction	Grade 4		Grade 8	
	Number assessed	Weighted percentage excluded	Number assessed	Weighted percentage excluded
Nation (public)	183,400	6	154,700	5
Alabama	3,400	3	2,800	4
Alaska	2,900	4	2,600	2
Arizona	3,600	6	2,800	5
Arkansas	3,000	7	2,500	6
California	10,200	4	8,600	3
Colorado	3,300	4	2,800	3
Connecticut	3,100	4	2,700	3
Delaware	3,000	12	2,800	7
Florida	5,200	7	4,100	5
Georgia	4,500	8	3,500	7
Hawaii	3,400	4	2,800	3
Idaho	3,500	3	2,900	3
Illinois	4,700	7	4,000	5
Indiana	3,100	5	2,700	5
Iowa	2,900	5	2,800	5
Kansas	2,800	6	2,800	5
Kentucky	3,200	8	2,600	8
Louisiana	3,000	4	2,400	3
Maine	2,900	6	2,700	6
Maryland	3,400	9	2,700	8
Massachusetts	4,200	6	3,600	7
Michigan	3,300	5	2,600	6
Minnesota	3,500	4	3,000	4
Mississippi	3,400	2	2,700	3
Missouri	3,200	4	2,900	3
Montana	3,000	4	2,600	4
Nebraska	2,800	5	2,700	4
Nevada	3,900	8	2,600	6
New Hampshire	3,300	4	2,900	4
New Jersey	3,200	7	2,800	7
New Mexico	2,900	12	2,600	9
New York	4,400	6	3,800	6
North Carolina	5,500	3	4,300	4
North Dakota	2,700	9	2,200	9
Ohio	3,700	8	3,500	9
Oklahoma	3,100	7	2,600	7
Oregon	3,400	5	2,700	3
Pennsylvania	3,400	5	2,800	5
Rhode Island	3,100	5	2,800	4
South Carolina	3,500	4	2,700	7
South Dakota	3,000	6	2,800	6
Tennessee	3,100	11	2,800	8
Texas	8,500	10	7,100	7
Utah	3,600	6	2,800	5
Vermont	2,600	7	2,000	5
Virginia	3,400	8	2,800	8
Washington	3,700	5	3,000	5
West Virginia	3,100	2	2,900	2

Wisconsin	3,200	5	2,700	7
Wyoming	2,700	4	2,000	4
Other jurisdictions				
District of Columbia	1,800	14	1,800	13
DoDEA ¹	3,200	5	1,700	3

¹ Department of Defense Education Activity Schools (domestic and overseas).

NOTE: The numbers of students assessed are rounded to the nearest hundred.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 Reading Assessment.

Appendix A

Overview of Procedures Used for the NAEP 2007 Reading Assessment

This appendix provides an overview of the NAEP 2007 reading assessment's primary components—framework, development, administration, scoring, and analysis. The information provided about the state and national assessments covers grades 4 and 8 (grade 12 was not assessed in 2007), as well as NAEP's Trial Urban District Assessment (TUDA).

The NAEP 2007 Reading Assessment

The National Assessment Governing Board, created by Congress in 1988, is responsible for formulating policy for NAEP. The Governing Board is specifically charged with developing assessment objectives and test specifications. The design of the NAEP 2007 reading assessment follows the guidelines first provided in the framework developed for the 1992 assessment.¹ The framework underlying the 1992, 1994, 1998, 2000 (fourth grade only), 2002, 2003, 2005, and 2007 reading assessments reflects the expert opinions of educators and researchers about reading. The development of this framework and the specifications that guided the development of the assessment involved the critical input of hundreds of individuals across the country, including representatives of national education organizations, teachers, parents, policymakers, business leaders, and the interested general public. The framework development process was managed by the Council of Chief State School Officers (CCSSO) for the Governing Board. (A revised reading framework will guide the NAEP assessment in 2009.)

The framework sets forth a broad definition of "reading literacy" that includes developing a general understanding of written text, thinking about it, and using various texts for different purposes. In addition, the framework views reading as an interactive and dynamic process involving the reader, the text, and the context of the reading experience. For example, readers may read stories to enjoy and appreciate the human experience, study science texts to form new hypotheses about knowledge, or follow directions to fill out a form. NAEP reflects current definitions of literacy by differentiating among three contexts for reading and four aspects of reading. The contexts for reading and aspects of reading provide the foundation of the NAEP reading assessment.

The "contexts for reading" dimension of the NAEP reading framework provides guidance for the types of texts to be included in the assessment. Although many commonalities exist among the different types of reading contexts, different contexts do lead to real differences in what readers do. For example, when *reading for literary experience*, readers make plot summaries and abstract major themes. They describe the interactions of various literary elements (e.g., setting, plot, characters, and theme). When *reading for information*, readers critically judge the organization and content of the text and explain their judgments. They also look for specific pieces of information. When *reading to perform a task*, readers apply what they learn from reading materials such as bus or train schedules, directions for repairs or games, classroom procedures, and maps.

The "aspects of reading" dimension of the NAEP reading framework provides guidance for the types of comprehension questions to be included in the assessment. The four aspects are 1) *forming a general understanding*, 2) *developing interpretation*, 3) *making reader/text connections*, and 4) *examining content and structure*. These four aspects represent different ways in which readers develop understanding of a text. In *forming a general understanding*, readers must consider the text as a whole and provide a global understanding of it. As readers engage in *developing interpretation*, they must extend initial impressions in order to develop a more complete understanding of what was read. This involves linking information across parts of a text or focusing on specific information. When *making reader/text connections*, the reader must connect information in the text with knowledge and experience. This might include applying ideas in the text to the real world. Finally, *examining content and structure* requires critically evaluating, comparing and contrasting, and understanding the effect of such features as irony, humor, and organization.

Figure A-1 demonstrates the relationship between these reading contexts and aspects of reading in the NAEP reading assessment. Included in the figure are sample questions that illustrate how each aspect of reading is assessed within each reading context. (Note that reading to perform a task is not assessed at grade 4.)

Sample questions for aspect of reading and context for reading as specified in the NAEP reading framework: 2007

Context for reading	Aspect of reading			
	Forming a general understanding	Developing interpretation	Making reader/text connections	Examining content and structure
Reading for literary experience	<i>What is the story/plot about?</i>	<i>How did this character change from the beginning to the end of the story?</i>	<i>What other character that you have read about had a similar problem?</i>	<i>What is the mood of this story and how does the author use language to achieve it?</i>
Reading for information	<i>What point is the author making about this topic?</i>	<i>What caused this change?</i>	<i>What other event in history or recent news is similar to this one?</i>	<i>Is this author biased? Support your answer with information about this article.</i>
Reading to perform a task	<i>What time can you get a nonstop flight to X?</i>	<i>What must you do before step 3?</i>	<i>Describe a situation in which you would omit step 5.</i>	<i>Is the information in this brochure easy to use?</i>

SOURCE: National Assessment Governing Board. (2006). *Reading Framework for the 2007 National Assessment of Educational Progress*. Washington, DC: Author.

The assessment framework specifies not only the particular dimensions of reading literacy to be measured, but also the percentage of assessment questions that should be devoted to each. The target percentage distribution for contexts for reading and aspects of reading as specified in the framework, along with the actual percentage distribution in the assessment, are presented in tables A-1 and A-2.

Target and actual percentage distribution of questions in NAEP reading, by context for reading and grade: 2007

Grade	Context for reading		
	Reading for literary experience	Reading for information	Reading to perform a task
Grade 4			
Target	55	45	†
Actual	51	49	†
Grade 8			
Target	40	40	20
Actual	36	40	24

† Not applicable. Reading to perform a task was not assessed at grade 4.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 Reading Assessment.

Target and actual percentage distribution of student time in NAEP reading, by aspect of reading and grade: 2007

Grade	Aspect of reading		
	Forming a general understanding and developing interpretation ¹	Making reader/text connections	Examining content and structure
Grade 4			
Target	60	15	25
Actual	68	14	17
Grade 8			
Target	55	15	30
Actual	59	17	24

¹Two aspects of reading are combined in this column.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 Reading Assessment.

The actual content of the assessment has varied from the targeted distribution. For example, at grade 8, reading for literary experience falls below the target proportions, and the percent of reading to perform a task items is above the target proportions specified in the framework. The reading instrument development panel responsible for overseeing the development of the assessment recognized this variance, but felt strongly that assessment questions must be sensitive to the unique elements of the authentic reading materials being used. Thus, the distribution of question classifications will vary across reading passages and reading contexts. However, in

creating the subscales for the reading assessment, the performance results from the contexts for reading were weighted according to the percentages specified by the framework.

The Assessment Design

Each student who participated in the 2007 reading assessment received a booklet containing three or four sections: a set of general background questions, a set of subject-specific background questions, and one or two sets of questions assessing students' comprehension of a text or texts. The sets of questions assessing students' comprehension are referred to as "blocks." Each block contains one or more reading passages and a set of comprehension questions. At grade 8, students were given either two 25-minute blocks or one 50-minute block. At grade 4, however, only 25-minute blocks were used. Following the schedule set by the Governing Board, the reading assessment was not administered at grade 12 in 2007.

The blocks contain a combination of multiple-choice and constructed-response questions. Multiple-choice questions require students to select the best answer from a set of four options. Constructed-response questions require students to provide their own written response to an open-ended question. Short constructed-response questions may require a response of only a sentence or two for the answer to be considered complete. Extended constructed-response questions, however, may require a response of a paragraph or more for the answer to receive full credit. Each constructed-response question has its own unique scoring guide that is used by trained scorers to rate students' responses. (See the "Data Collection and Scoring" section of this appendix.)

The grade 4 assessment consisted of ten 25-minute blocks: five blocks of literary texts and questions and five blocks of informative texts and questions. Each block contained one passage corresponding to one of the contexts for reading and 9 to 12 multiple-choice and constructed-response questions. In most blocks, one of the constructed-response questions required an extended response. As a whole, the 2007 fourth-grade assessment consisted of 57 multiple-choice questions, 35 short constructed-response questions, and 8 extended constructed-response questions.

The grade 8 assessment consisted of twelve 25-minute blocks (four literary, four informative, and four to perform a task) and one 50-minute block (informative). Each block contained at least one passage corresponding to one of the contexts for reading and 9 to 13 multiple-choice and constructed-response questions. Most blocks contained at least one extended constructed-response question. As a whole, the eighth-grade assessment consisted of 65 multiple-choice questions, 58 short constructed-response questions, and 17 extended constructed-response questions.

The assessment design allowed maximum coverage of a range of reading abilities at each grade, while minimizing the time burden for any one student. This was accomplished through the use of a matrix sampling of items in which representative samples of students took various portions of the entire pool of assessment questions. Individual students are required to take only a small portion, but the aggregate results across the entire assessment allow for a broad reporting of reading abilities for the targeted population.

In addition to matrix sampling, the assessment design utilized a procedure for distributing blocks across booklets that controlled for position and context effects. Students received different blocks of passages and comprehension questions in their booklets according to a procedure that assigned blocks of questions, balancing the positioning of blocks across booklets, and balancing the pairing of blocks within booklets according to the context for reading. Blocks were balanced within each context for reading and were partially balanced across contexts for reading. The procedure also cycled the booklets for administration so that, typically, only a few students in any assessment session received the same booklet.

In addition to the student assessment booklets, three other instruments provided data relating to the assessment: a teacher questionnaire, a school questionnaire, and questionnaires about students with disabilities (SD) and/or English language learners (ELL). The teacher questionnaire was administered to teachers of fourth- and eighth-grade students participating in the assessment. The questionnaire focused on the teacher's general background and experience, the teacher's background related to reading, and type of classroom organization. The fourth-grade teacher questionnaire also included questions on reading instruction. The school questionnaire was given to the principal or other administrator in each participating school. The questions asked about school policies, programs, facilities, and the demographic composition and background of the students and teachers at the school.

The SD and ELL questionnaires were completed by a school staff member knowledgeable about those students selected to participate in the assessment who were identified as having an Individualized Education Program (IEP) or equivalent plan (for reasons other than being gifted or talented), or as being an English language learner. An SD or ELL questionnaire was completed for each identified student in the NAEP sample. Each SD or ELL questionnaire asked about the student (for example, type of disability or language spoken other than English) and the special instructional programs (i.e., proportion of time spent in mainstream/general education classes, or specially designed instruction) in which he or she participated.

NAEP Samples

National Sample

The national results presented in this report are based on nationally representative probability samples of fourth- and eighth-grade students. The national sample consisted of the combined sample of public school students assessed in each state and an additional nonpublic school sample. The method of creating the national sample as an aggregate of the state samples has been used since 2002. Prior to 2002, separate samples were drawn for the NAEP national and state assessments. For 2007, the sampling frame for public schools was the Common Core of Data (CCD) file corresponding to the 2004–05 school year. The CCD file provided the frame for all regular public, state-operated public, Bureau of Indian Affairs, and Department of Defense domestic schools that were open during the 2004–05 school year. The sampling frame for private schools was developed from the 2003–04 Private School Survey (PSS), which was carried out by the U.S. Census Bureau for the National Center for Education Statistics (NCES). The PSS is a biennial mail survey of all private schools in the 50 states and the District of Columbia. The combined sample was chosen using a stratified two-stage design that involved sampling students from selected schools (public and nonpublic).

Each selected school that participated in the assessment and each student assessed represents a portion of the population of interest. Sampling weights are needed to make valid inferences from the student samples to the respective populations from which they were drawn. Sampling weights account for disproportionate representation of students from different states and for students who attend nonpublic schools. Sampling weights also account for lower sampling rates for very small schools and are used to adjust for school and student nonresponse.

For the 2007 national assessment, as for the 2002, 2003 and 2005 assessments, accommodations for students with disabilities (SD) and English language learners (ELL) were permitted for the entire sample of students. This procedure differs from the one for the 1998 and 2000 national assessments, in which data were collected from samples of students where assessment accommodations were not permitted and from samples of students where accommodations were permitted. In 2007, accommodations were offered when a student had an Individualized Education Program (IEP) indicating the need for accommodations because of a disability, or was protected under Section 504 of the Rehabilitation Act of 1973 because of a disability, or was identified as being an English language learner, or was normally offered accommodations in other assessment situations.² All other students were asked to participate in the assessment under standard conditions. Prior to 1998, testing accommodations (e.g., extended time, small group testing) were not permitted for students with disabilities and English language learners selected to participate in the NAEP reading assessments.

The sample sizes and target populations for the 2007 reading assessment are listed for the nation (public) and states in table A-3. In 2005 and 2007, Department of Defense Education Activity (DoDEA) schools are reported as a single jurisdiction; in past years, domestic (Department of Defense Domestic Dependent Elementary and Secondary Schools or DDESS) and overseas (Department of Defense Dependents Schools or DoDDS) schools were considered separate jurisdictions.

In the 2007 assessment, as in the 2002, 2003, and 2005 NAEP assessments, a number of large urban school districts participated on a voluntary basis in a Trial Urban District Assessment (TUDA), and larger than normal NAEP samples were drawn in these districts to permit reliable reporting of student group performance. Reports from these Trial Urban District Assessments (TUDAs) for 2002, 2003, and 2005 are available on the NAEP website at <http://nces.ed.gov/nationsreportcard/>; a report for 2007 is forthcoming. The sample sizes and target populations for the districts participating in TUDA are given in table A-4.

Sample sizes and target populations in NAEP reading at grades 4 and 8, by state: 2007

State/jurisdiction	Grade 4		Grade 8	
	Sample size	Target population	Sample size	Target population
Nation	204,400	3,795,000	170,600	3,911,000
Public	196,500	3,439,000	164,500	3,558,000
Nonpublic	7,900	356,000	6,100	352,000
Alabama	3,500	56,000	2,900	56,000
Alaska	3,000	9,000	2,700	9,000
Arizona	3,900	73,000	3,000	73,000
Arkansas	3,200	35,000	2,600	34,000
California	10,600	434,000	8,900	477,000
Colorado	3,500	54,000	2,900	57,000
Connecticut	3,200	41,000	2,800	42,000
Delaware	3,400	9,000	3,000	10,000
Florida	5,600	192,000	4,400	193,000
Georgia	4,900	119,000	3,800	120,000
Hawaii	3,500	13,000	2,900	13,000
Idaho	3,600	21,000	3,000	20,000
Illinois	5,100	149,000	4,200	150,000
Indiana	3,300	73,000	2,900	80,000
Iowa	3,000	32,000	3,000	36,000
Kansas	3,000	31,000	3,000	34,000
Kentucky	3,400	44,000	2,900	46,000
Louisiana	3,200	51,000	2,500	47,000
Maine	3,100	13,000	2,800	15,000
Maryland	3,800	61,000	2,900	64,000
Massachusetts	4,500	68,000	4,000	70,000
Michigan	3,500	116,000	2,800	119,000
Minnesota	3,600	57,000	3,100	62,000
Mississippi	3,400	39,000	2,800	36,000
Missouri	3,400	63,000	3,000	70,000
Montana	3,100	11,000	2,800	11,000
Nebraska	3,000	19,000	2,800	21,000
Nevada	4,200	30,000	2,800	28,000
New Hampshire	3,500	14,000	3,000	16,000
New Jersey	3,500	103,000	3,000	104,000
New Mexico	3,300	23,000	2,900	25,000
New York	4,700	195,000	4,000	206,000
North Carolina	5,700	106,000	4,500	104,000
North Dakota	3,000	7,000	2,500	8,000
Ohio	4,200	121,000	4,000	135,000
Oklahoma	3,400	44,000	2,800	42,000
Oregon	3,600	39,000	2,800	39,000
Pennsylvania	3,600	124,000	3,000	140,000
Rhode Island	3,300	11,000	2,900	12,000
South Carolina	3,600	48,000	3,000	52,000
South Dakota	3,200	9,000	3,000	10,000
Tennessee	3,400	71,000	3,000	74,000
Texas	10,000	321,000	7,700	294,000
Utah	3,800	37,000	2,900	36,000
Vermont	2,800	7,000	2,100	7,000
Virginia	3,800	86,000	3,000	91,000
Washington	3,900	71,000	3,200	78,000
West Virginia	3,200	20,000	3,000	21,000
Wisconsin	3,400	59,000	2,900	62,000
Wyoming	2,800	6,000	2,100	7,000
Other jurisdictions				
BIE ¹	1,100	3,000	1,100	3,000
District of Columbia	2,100	5,000	2,100	5,000
DoDEA ²	3,300	7,000	1,700	5,000

¹Bureau of Indian Education.

²Department of Defense Education Activity (overseas and domestic schools).

NOTE: The sample size is rounded to the nearest hundred. The target population is rounded to the nearest thousand. Detail may not sum to totals

because of rounding. Data for DoDEA and BIE schools are counted in the overall Nation total, but not in the Nation (public) total. Data for the District of Columbia public schools are counted, along with states, in Nation (public).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 Reading Assessment.

Student sample sizes and target populations for Trial Urban District Assessment (TUDA) in reading at grades 4 and 8, by urban district: 2007

District	Grade 4		Grade 8	
	Sample size	Target population	Sample size	Target population
Atlanta	1,500	4,000	1,000	3,000
Austin	2,000	6,000	1,700	5,000
Boston	1,400	4,000	1,300	4,000
Charlotte	1,800	10,000	1,400	9,000
Chicago	2,400	30,000	1,900	25,000
Cleveland	1,300	4,000	1,300	4,000
District of Columbia	2,100	5,000	2,100	5,000
Houston	2,900	15,000	2,200	13,000
Los Angeles	2,700	54,000	2,200	52,000
New York City	2,600	67,000	2,100	69,000
San Diego	1,700	10,000	1,500	9,000

NOTE: The sample size is rounded to the nearest hundred. The target population is rounded to the nearest thousand.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 Trial Urban District Reading Assessment.

State Samples

The results of the 2007 state assessment in reading provided in this report are based on state-level samples of fourth- and eighth-grade public school students. The samples were selected using a two-stage sample design that first selected schools within each state or other jurisdiction and then selected students within schools. The samples were weighted to allow valid inferences about the populations of interest. Participation rates for the states and other jurisdictions were calculated the same way that rates were computed for the nation. Tables A-5 and A-6 display weighted school and student participation rates, for the state samples at grades 4 and 8, respectively.

Public school and student participation rates in NAEP reading at grade 4, by state: 2007

State/jurisdiction	School participation			Student participation	
	Student-weighted percent	School-weighted percent	Number of schools participating	Student-weighted percent	Number of students assessed
Nation (public)	100	100	7,310	95	183,400
Alabama	100	100	110	95	3,400
Alaska	100	98	180	93	2,900
Arizona	99	99	120	95	3,600
Arkansas	100	100	120	94	3,000
California	100	100	320	95	10,200
Colorado	99	99	120	95	3,300
Connecticut	100	100	110	94	3,100
Delaware	100	100	100	94	3,000
Florida	100	100	160	93	5,200
Georgia	100	100	160	95	4,500
Hawaii	100	100	120	95	3,400
Idaho	100	100	130	95	3,500
Illinois	98	99	180	96	4,700
Indiana	100	100	110	95	3,100
Iowa	99	99	140	95	2,900
Kansas	100	100	140	95	2,800
Kentucky	100	100	120	95	3,200
Louisiana	100	100	110	94	3,000

Maine	100	100	150	94	2,900
Maryland	100	100	110	95	3,400
Massachusetts	100	100	170	93	4,200
Michigan	100	100	120	94	3,300
Minnesota	98	98	130	94	3,500
Mississippi	100	100	120	95	3,400
Missouri	100	100	130	95	3,200
Montana	100	99	190	95	3,000
Nebraska	100	100	160	95	2,800
Nevada	100	100	110	95	3,900
New Hampshire	100	100	130	95	3,300
New Jersey	98	99	110	95	3,200
New Mexico	99	100	130	94	2,900
New York	99	99	150	93	4,400
North Carolina	100	100	170	94	5,500
North Dakota	100	98	210	96	2,700
Ohio	100	100	160	95	3,700
Oklahoma	100	100	140	95	3,100
Oregon	100	100	140	94	3,400
Pennsylvania	100	100	110	95	3,400
Rhode Island	100	100	110	94	3,100
South Carolina	100	100	110	96	3,500
South Dakota	100	100	190	95	3,000
Tennessee	100	100	120	95	3,100
Texas	100	100	300	95	8,500
Utah	100	100	110	95	3,600
Vermont	100	100	190	94	2,600
Virginia	100	100	110	96	3,400
Washington	100	98	130	94	3,700
West Virginia	100	100	150	94	3,100
Wisconsin	100	100	130	94	3,200
Wyoming	100	100	170	95	2,700
Other jurisdictions					
District of Columbia	100	100	120	93	1,800
DoDEA ¹	100	99	120	93	3,200

¹ Department of Defense Education Activity (overseas and domestic schools).

NOTE: The numbers of schools are rounded to the nearest ten, and the numbers of students are rounded to the nearest hundred. Columns of percentages have different denominators; see accompanying text for definitions. Detail may not sum to totals because of rounding. Substitutions of reserve schools for initially sampled schools were not needed in 2007 because school participation rates were high.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 Reading Assessment.

Public school and student participation rates in NAEP reading at grade 8, by state: 2007

State/jurisdiction	School participation			Student participation	
	Student-weighted percent	School-weighted percent	Number of schools participating	Student-weighted percent	Number of students assessed
Nation (public)	100	100	6,410	92	154,700
Alabama	100	100	120	93	2,800
Alaska	100	99	110	91	2,600
Arizona	100	100	130	90	2,800
Arkansas	100	100	120	93	2,500
California	100	100	310	92	8,600
Colorado	96	98	120	92	2,800
Connecticut	97	97	100	92	2,700
Delaware	100	100	50	93	2,800
Florida	100	100	160	91	4,100
Georgia	100	100	120	93	3,500
Hawaii	100	100	70	91	2,800
Idaho	99	99	110	93	2,900
Illinois	100	100	200	93	4,000
Indiana	100	100	110	92	2,700

Iowa	100	100	130	93	2,800
Kansas	100	100	150	94	2,800
Kentucky	100	100	110	93	2,600
Louisiana	100	100	110	92	2,400
Maine	96	98	130	93	2,700
Maryland	100	100	110	90	2,700
Massachusetts	100	100	140	93	3,600
Michigan	100	100	120	91	2,600
Minnesota	98	99	140	92	3,000
Mississippi	100	100	110	93	2,700
Missouri	100	100	130	92	2,900
Montana	100	98	170	92	2,600
Nebraska	100	100	120	94	2,700
Nevada	100	100	70	88	2,600
New Hampshire	98	98	90	92	2,900
New Jersey	98	97	110	92	2,800
New Mexico	100	100	110	89	2,600
New York	100	100	160	90	3,800
North Carolina	100	100	150	91	4,300
North Dakota	99	98	190	95	2,200
Ohio	100	100	190	92	3,500
Oklahoma	100	100	150	92	2,600
Oregon	100	100	110	92	2,700
Pennsylvania	100	100	110	92	2,800
Rhode Island	100	100	60	92	2,800
South Carolina	100	100	110	94	2,700
South Dakota	100	99	140	95	2,800
Tennessee	100	100	120	92	2,800
Texas	100	100	220	92	7,100
Utah	100	100	100	91	2,800
Vermont	100	100	120	93	2,000
Virginia	100	100	110	93	2,800
Washington	100	100	130	91	3,000
West Virginia	100	100	120	92	2,900
Wisconsin	98	98	130	92	2,700
Wyoming	100	100	80	92	2,000
Other jurisdictions					
District of Columbia	100	100	50	88	1,800
DoDEA ¹	100	98	60	94	1,700

¹ Department of Defense Education Activity (overseas and domestic schools).

NOTE: The numbers of schools are rounded to the nearest ten, and the numbers of students are rounded to the nearest hundred. Columns of percentages have different denominators; see accompanying text for definitions. Detail may not sum to totals because of rounding. Substitutions of reserve schools for initially sampled schools were not needed in 2007 because school participation rates were high.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 Reading Assessment.

District Samples

Results from the 2007 reading assessment are also reported for district-level samples of fourth- and eighth-grade students in the large urban school districts that participated in the Trial Urban District Assessment (TUDA)—Atlanta City, Austin, Boston School District, Charlotte-Mecklenburg Schools, City of Chicago School District 299, Cleveland Municipal School District, Houston Independent School District, Los Angeles Unified, New York City Public Schools, and San Diego City Unified. The District of Columbia, which is regularly included in NAEP assessments as a jurisdiction, also participated in the TUDA. The sample of students in the urban school districts represents an augmentation of the sample of students who would usually be selected as part of the state samples. These samples allow reliable reporting of student groups within these districts. Furthermore, all students at more local geographic sampling levels are assumed to be part of broader samples. For example, Houston is one of the urban districts included in the TUDA. Data from students tested in the Houston sample were used to report results for Houston, but also contributed to the Texas and national estimates. Participation rates for the urban district samples are presented in table A-7.

Public school and student participation rates for Trial Urban District Assessment in reading, by grade and urban district: 2007

Grade and district	School participation		Student participation	
	Student-weighted percent	Number of schools participating	Student-weighted percent	Number of students assessed
Grade 4				
Atlanta	100	50	96	1,400
Austin	100	60	95	1,600
Boston	100	60	95	1,300
Charlotte	100	50	95	1,700
Chicago	100	90	95	2,300
Cleveland	100	60	93	1,100
District of Columbia	100	120	93	1,800
Houston	100	80	96	2,400
Los Angeles	100	80	95	2,700
New York City	100	80	93	2,500
San Diego	100	60	94	1,700
Grade 8				
Atlanta	100	20	90	900
Austin	100	20	92	1,500
Boston	100	30	91	1,200
Charlotte	100	30	90	1,400
Chicago	100	100	94	1,800
Cleveland	100	80	89	1,100
District of Columbia	100	50	88	1,800
Houston	100	50	91	2,000
Los Angeles	100	70	90	2,100
New York City	100	80	87	2,000
San Diego	100	30	93	1,400

NOTE: The numbers of schools are rounded to the nearest ten, and the numbers of students are rounded to the nearest hundred. Substitutions of reserve schools for initially sampled schools were not needed in 2007 because school participation rates were high. The percentages for school-weighted and student-weighted school participation are both at 100 percent for the participating districts in 2007.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2007 Trial Urban District Reading Assessment.

Standards for State Sample Participation and Reporting of Results

In carrying out the 2007 state assessment program, the NAEP program in the National Center for Education Statistics (NCES) established participation rate standards that states and other jurisdictions were required to meet for their results to be reported. NAEP state assessment results are based only on public schools. Participation rates before substitution needed to be at least 80 percent for schools and at least 85 percent for students. In the 2007 reading assessment at both fourth and eighth grades, all jurisdictions met NAEP participation rate standards and the National Assessment Governing Board standard of 85 percent school participation. Further information on the NCES guidelines used to report results in the state assessments, and the guidelines for notations when there was some risk of nonresponse bias in the reported results prior to the 2003 assessments, can be found in the NAEP 2002 reading report card (NCES 2003–521; see appendix A, "Standards for Sample Participation and Reporting of Results").

Students With Disabilities (SD) and/or English Language Learners (ELL)

It is important to assess all selected students from the target population. Therefore, every effort is made to ensure that all selected students who are capable of participating in the assessment are assessed. Some students sampled for participation in NAEP can be excluded from the sample according to carefully defined criteria. These criteria were revised in 1996 to communicate more clearly a presumption of inclusion except under special circumstances. According to these criteria, students who had an Individualized Education Program (IEP) or were protected under Section 504 of the Rehabilitation Act of 1973 were to be included in the NAEP assessment except when:

- the school's IEP team determined that the student could not participate because the student's cognitive functioning was so severely impaired that he or she could not participate, or

- the student's IEP required that the student had to be tested with an accommodation or adaptation that NAEP does not allow and the student could not demonstrate his or her knowledge without that accommodation.

All English language learners who received academic instruction in English for one year or more were to be included in the assessment. Those students identified as ELL who received instruction in English for less than one year were to be included unless school staff judged them to be incapable of participating in the assessment in English.

Participation of SD/ELL Students in the NAEP Samples

Testing all sampled students is the best way for NAEP to ensure that the statistics generated by the assessment are as representative as possible of the performance of the entire national population and the populations of participating jurisdictions. However, all groups of students include certain proportions that cannot be tested in large-scale assessments (such as students who have profound mental disabilities) or who can only be tested through the use of testing accommodations such as extra time, one-on-one administration, or use of magnifying equipment. Some students with disabilities and some English language learners cannot show on a test what they know and can do unless they are provided with accommodations. When such accommodations are not allowed, students requiring such adjustments are often excluded from large-scale assessments such as NAEP. This phenomenon has become more common since the 1990s, particularly with the passage of the 1997 Individuals with Disabilities Education Act (IDEA), which led schools and states to identify increasing proportions of students as needing accommodations on assessments to best show what they know and can do.³ Furthermore, section 504 of the Rehabilitation Act of 1973 requires that, when students with disabilities are tested, schools must provide them with appropriate accommodations so that the test results accurately reflect students' achievement. In addition, as the proportion of ELL students in the population has increased, some states have started offering accommodations such as translations of assessments or the use of bilingual dictionaries as part of the assessments.

Before 1996, no testing under nonstandard conditions was allowed in NAEP, and accommodations were not permitted. At that time, NAEP samples were able to include almost all sampled students in standard assessment sessions. However, as the influence of IDEA became more widespread, the failure to provide accommodations led to increasing levels of exclusion in the assessment. Such increases posed two threats to the program: they threatened the stability of trend lines (because excluding more students in one assessment year than in another might lead to apparent rather than real differences), and they made NAEP samples less than optimally representative of target populations.

A multipart strategy was adopted as a response to this challenge. The program had to move toward allowing the same assessment accommodations that were afforded students in state and district testing programs for NAEP samples to be as inclusive as possible. However, to allow accommodations represents a change in testing conditions that might affect measurement of changes over time. Therefore, beginning with the 1996 national assessments (in mathematics and science) and the 1998 state assessments (reading and writing), and up to 2000, NAEP assessed a series of parallel samples of students. In one set of samples, testing accommodations were not permitted; this allowed NAEP to maintain the measurement of achievement trends. Parallel samples in which accommodations were permitted were also assessed. By having two overlapping samples⁴ and two sets of related data points, NAEP could meet two core program goals. First, data trends could be maintained. Second, parallel trend lines could be reported during the interim until the program transitioned to a sample with accommodations permitted as its only reporting format. Starting in 2002, NAEP has used only the more inclusive samples, in which assessment accommodations are permitted. In reading, national and state data from 1992, 1994, and 1998 are reported for the sample in which accommodations were not permitted. National and state data for the sample in which accommodations were permitted are reported for 1998, 2002, 2003, 2005, and 2007. National-only data at grade 4 for both accommodated and non-accommodated samples are reported for 2000. The 2000 reading assessment was conducted only at grade 4 with a national sample; there were no state-level samples, and grades 8 and 12 were not assessed.

To make it possible to evaluate both the impact of increasing exclusion rates in some jurisdictions and differences between jurisdictions, complete data on exclusion in all years are included in this appendix. Because the exclusion rates may affect trend measurement within a jurisdiction, readers should consider the magnitude of exclusion rate changes when interpreting score changes in jurisdictions. In addition, different rates of exclusion may influence the meaning of state comparisons. Thus, exclusion data should be reviewed in this context as well.

Table A-8 presents the percentages of all public and nonpublic school students who were identified as students with disabilities (SD) or as English language learners (ELL), or both, for assessments where

accommodations were not permitted. The table also includes the percentages of all students who were excluded SD and/or ELL and the percentages of all students who were assessed SD and/or ELL for those assessments. The denominator for these percentages includes assessed students plus excluded students; it does not include sampled students who were absent or refused to participate. Tables A-9 through A-14 show similar information by state and jurisdiction.

Table A-15 presents the percentages of all public and nonpublic school students who were identified as SD and/or ELL for assessments where accommodations were permitted. This table also includes the percentages of all students who were SD and/or ELL who were excluded, assessed, assessed without accommodations, and assessed with accommodations. Similar information is presented for states and jurisdictions in tables A-16 through A-21, and for districts that participated in the Trial Urban District Assessment in tables A-22 and A-23.

In the 2007 national sample, 6 percent of students at grade 4 and 5 percent of students at grade 8 were excluded from the assessment (see table A-15). Across the various jurisdictions that participated in the 2007 state assessment, the percentage of students excluded ranged from 2 to 14 percent at grade 4 (see table A-16) and from 2 to 13 percent at grade 8 (see table A-19). At the district level, between 3 and 20 percent of students were excluded at grade 4 (see table A-22), and between 4 and 16 percent were excluded at grade 8 (see table A-23).

Percentage of fourth- and eighth-grade public and nonpublic school students identified as students with disabilities (SD) and/or English language learners (ELL), and percentage excluded and assessed in NAEP reading when accommodations were not permitted: 1992, 1994, and 1998

Student characteristics	1992	1994	1998
Grade 4			
SD and/or ELL			
Identified	10	13	16
Excluded	6	5	9
Assessed	4	8	7
SD			
Identified	7	10	11
Excluded	4	4	6
Assessed	3	6	5
ELL			
Identified	3	4	6
Excluded	2	1	3
Assessed	1	2	2
Grade 8			
SD and/or ELL			
Identified	10	13	12
Excluded	7	7	6
Assessed	4	6	7
SD			
Identified	8	11	10
Excluded	5	6	5
Assessed	3	5	5
ELL			
Identified	3	3	3
Excluded	2	1	1
Assessed	1	1	2

NOTE: Students identified as both SD and ELL were counted only once under the combined SD and/or ELL category, but were counted separately under the SD and ELL categories. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1994, and 1998 Reading Assessments.

Percentage of fourth-grade public school students identified as students with disabilities and/or English language learners, and percentage excluded and assessed in NAEP reading when accommodations were not permitted, by state: 1992, 1994, and 1998

	1992	1994	1998
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State/jurisdiction	Identified	Excluded	Assessed	Identified	Excluded	Assessed	Identified	Excluded	Assessed
Nation (public)	11	6	4	14	6	8	17	10	7
Alabama	10	6	4	11	5	5	13	8	5
Arizona	16	7	9	21	7	14	22	10	12
Arkansas	11	5	6	12	6	6	11	5	6
California	28	14	13	31	12	18	31	15	15
Colorado	11	6	4	15	7	8	15	7	8
Connecticut	15	7	8	17	8	8	18	13	6
Delaware	12	6	6	15	6	9	16	7	9
Florida	17	9	8	22	10	11	18	9	9
Georgia	9	5	4	11	5	5	11	7	4
Hawaii	13	6	8	12	5	7	15	5	10
Idaho	9	4	5	12	5	7	—	—	—
Illinois	—	—	—	—	—	—	14	10	5
Indiana	8	4	3	11	5	6	—	—	—
Iowa	9	4	6	11	5	6	15	8	7
Kansas	—	—	—	—	—	—	12	6	7
Kentucky	8	4	4	8	4	4	13	9	4
Louisiana	8	4	4	11	6	5	15	12	3
Maine	12	5	6	17	10	7	15	8	7
Maryland	14	7	7	15	7	8	13	10	3
Massachusetts	17	7	10	18	8	10	19	8	11
Michigan	7	5	2	10	6	4	10	7	3
Minnesota	10	4	6	12	4	8	15	4	11
Mississippi	7	5	2	9	6	4	7	4	3
Missouri	11	5	6	12	5	7	14	7	7
Montana	—	—	—	11	4	8	10	4	6
Nebraska	13	4	9	16	4	12	—	—	—
Nevada	—	—	—	—	—	—	20	12	7
New Hampshire	12	4	7	15	6	9	14	5	9
New Jersey	10	6	5	12	6	6	—	—	—
New Mexico	13	8	6	18	8	10	28	11	16
New York	13	6	7	15	8	7	14	9	5
North Carolina	12	4	7	14	5	9	15	10	5
North Dakota	10	2	8	10	2	8	—	—	—
Ohio	10	6	4	—	—	—	—	—	—
Oklahoma	13	8	4	—	—	—	15	9	6
Oregon	—	—	—	—	—	—	20	7	12
Pennsylvania	9	4	5	—	—	—	—	—	—